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A STUDY IN NEUROSES: A CASE OF EPILEPSY.

Paper read before the A. O. A. at Cleveland, O.
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The term neurosis is a general term used in medicine to denote a class of diseases related to the nervous system, whose chief manifestation is a disturbance of function on its part, yet unmarked by any constant morbid changes in the neural apparatus itself. This class is also denominated functional diseases of the nervous system.

Epilepsy is classed as a neurosis.

In the March number of the Journal of Osteopathy (Kirksville) of this year (1903) I published an article entitled "Three Cases of Epilepsy." This article was designed more especially for the general public and not meant as a scientific discussion. In the present paper I desire to take up one of these cases and enter into a scientific and technical study of it.

The case is that of a boy of fourteen years afflicted with epilepsy. He had been afflicted about fifteen months when I first saw him. Five years previous to this attack he had had another attack of epilepsy which continued for several months. This first attack came upon him in this way: He was playing with a goat. He had the goat hitched to a small wagon for a ride. The goat started down hill with him in a run. Having run for some distance the wagon was turned over and the boy thrown against a tree. He was carried away to the house helpless. He limped about for a day or so and then was at school as usual. At school that day he showed peculiar nervous symptoms and laughed out, as they thought, and yet he appeared unable to control it for a moment. He was accused of making fun for the school, but the attendant nervous symptoms raised a doubt in the teacher's mind. He manifested peculiar symptoms at home the same day, and was kept from school. He settled down into regular spasms which for a day or so grew more frequent and severe and then they remained about the same—six or eight every day. He generally lost consciousness, but rarely did he ever fall. He usually caught hold of something or sat down where he was. He appeared to be in his usual health otherwise. One day he was running quite fast while at play, and was tripped up, fell quite hard and rolled some distance down a steep incline. This fall shook him up rather severely. He was helped up

and limped away to the house. Strange to say, the result of this experience was that he had no more spasms from that day.

Five years passed. One day again in school he showed some nervous symptoms. They took him from school, and in a few days he began with the same old spasms again. This time they became more numerous and more severe. Whether he had injured himself at school in any way no one ever knew, but the same old symptoms appeared in an aggravated form.

Physicians of two schools treated him without success as in the former instance. They had finally concluded that it was likely Jacksonian epilepsy, and were urging an operation, when the father brought him to me. At this time he was having from twenty-four to twenty-six spasms every twenty-four hours. The spasm usually lasted him about a minute or more. However, once a day, about four o'clock every morning, he had a very severe one, in which he remained unconscious for as much as fifteen or twenty minutes. Usually he had one of these spasms about every hour. I saw him in several. They were very peculiar in some respects. In describing his feelings he said he had a peculiar sensation in his right arm, as though it were going to sleep, and along with it a sensation in the pit of the stomach or a little above, with a drawing or creeping feeling, all of this occurring just a moment before he became unconscious.

In observing him in several spasms he first became quite restless and nervous, turning his head first to one side and then to the other, when it finally remained turned to the right. During this time he had a very pitiful and beseeching expression, mingled with a degree of fright. The muscles of the right arm and leg began to draw up and twitch somewhat and precisely at the same time the muscles about both sides of the face began to twitch also, and in a moment the whole body was involved and this condition passed at once into a tonic spasm of the entire body, with a marked tremor in the upper part of the body above the waist line and in the arms, which were flexed at the elbow. His face also presented a cyanosed appearance. Very rarely did he fall. A few times he bit his tongue. Naturally he caught hold of something near him and held to it during the spasm, or he would sit down where he was. I saw him remain standing on one occasion through the entire spasm while he held to the table where he stood, although he was unconscious during the whole time. A very peculiar cry began with the spasm and continued during the entire time. This commenced as a whimpering and whining as the spasm came on. It sounded as though he was beginning to cry and changed at once into a kind of laugh and cry combined, and so continued while the spasm lasted. The cry could be heard some distance. The first spasm I saw him have was while I was treating him. He was lying face down, and I was treating him quite thoroughly, when he began to whimper. Thinking that I might have given him some pain and that he was beginning to cry, I began to apologize, when his father told me that a spasm was coming on.

DIAGNOSIS.

In making my examination of this case I found the following conditions present: The cervical region was very sensitive in and about the third, fourth and fifth vertebrae, but there was no manifest bony lesion there. There was also very marked sensation in the splanchnic area of the spine,

and especially in the region of the seventh, eighth and ninth ribs on the left. The spine was markedly posterior at this point and these ribs were somewhat maladjusted.

TREATMENT.

I concentrated my work at these points of maladjustment and sensitiveness. I gave especial attention to the diaphragm and the solar plexus. I treated the cervical region and splanchnic region by freeing up the muscles and attending to the nerves of these regions and worked to readjust the ribs and spine.

RESULTS.

After treating him twice the spasms grew less severe and less numerous. After two weeks' treatment he had no more spasms. I continued the treatment, however, for two months to make sure that his body was in good working order. Two years ago last March I discharged the case. I heard no more of the boy until the following August, when his father brought him to me again, saying that the spasms had returned. Up to this time he had enjoyed good health since I discharged him in March. His father described the return of the spasms as follows: The boy had been playing ball all day in the very hot sun and became overheated. While in this condition he drank quite a good deal of ice water. In the meantime he had acquired the cigarette habit also The spasms this time were not so severe nor so frequent. I began treating him at once, and treated him for two months. I found this time no marked anatomic lesion as on the other occasion, but a general tenderness along the spine, which was more pronounced in the splanchnic and cervical regions. He improved during the two months' treatment, but did not become entirely free of the spasms. We could not induce him to quit the cigarettes. Whether this had anything to do with the case I could not say, but I am of the opinion it did. Within less than a week after I finished the two months' treatment I met his brother one day, and on inquiry he said he was about as when I last treated him. I heard no more of the case for seven months. I met his brother again on this occasion, and he told me the boy was all right. I learned that the spasms had ceased entirely within a week after he stopped the treatment. He did not want to quit the treatment when they stopped him, so I learned, but his mother insisted that he should not continue the treatment unless he would follow my advice and quit the cigarettes. This caused him to leave them off to induce his mother to have me continue the treatment, and in a few days after he stopped the cigarettes the spasms ceased.

In studying and treating my patients I find myself reverting continually to the writings and sayings of Dr. A. T. Still. Dr. Still is a seer, a philosopher. What little he has written is not burdened and covered up with book lore—that which he often terms guess work and theories of other schools. His language is not always clear either, for he is a poet as well as a philosopher, and his figures of speech do not always convey clear-cut shades of scientific truth as we are accustomed to find in our very technical writings, but he never fails to set me to thinking when I read after him. I attribute my success in these cases to a great extent to a suggestion from Dr. Still's book, "The Philosophy of Osteopathy." This was concerning the part that the diaphragm plays in these spasms. Reading after him set me to studying and

investigating, and in the case before us I am desirous of giving you some of my conclusions as an illustration of the principles of osteopathy.

Just at this point let us refresh our minds a little on the anatomy of the diaphgram, especially its nervous relations. The diaphgram is supplied by the phrenic nerve. You are all familiar with the anatomy of this nerve, its origin, its distribution and relations; how it rises from the third, fourth and fifth cervical nerves, especially the fourth, having some branches from the third and a recurrent branch from the fifth. It has important connections with the sympathetic system. Gray says the phrenic nerve supplies the pericardium and also the pleura by filaments. In the thoracic cavity a filament is sent from the sympathetic to the phrenic and that there are branches also to the peritoneum. From the right nerve there are branches which go to the phrenic ganglion, situated just below the diaphragm, which is sympathetic. This ganglion is connected with the solar plexus. From the left nerve branches go direct to join the solar plexus without the intervention of a ganglion. Quain adds that the phrenic receives sympathetic branches in the neck from the middle or lower sympathetic ganglia. He states further that from the right nerve there are branches going to the inferior vena cava, both above and below the diaphragm, and that branches also go to the right auricle of the heart. Quain states further that the phrenic may have a branch from the hypoglossal nerve. Summed up we have the following connections:

1. Connections with the sympathetics; (1) middle and lower sympathetic ganglia in the neck; (2) from sympathetics in the chest; (3) with solar plexus: (a) from right through phrenic ganglion; (b) from left without intervention of a ganglion.

2. Connection with cranial nerves; (1) hypo glassal; (2) the vagus, for it goes to form solar plexus.

3. Connection with brachial plexus; (1) recurrent branch from fifth cervical.

Now, in the light of these nervous relations and phenomena, nervous and otherwise, of this case of epilepsy, my opinion is that this case of epilepsy was caused by an injury to splanchnic area of the spine and of the ribs of this region on the left; that this injury at this point in this instance caused a spasmodic prolapsus of the diaphragm which caused the other phenomena, that is, the fit. Readjusting this maladjusted condition of the spine and ribs removed the cause of the spasmodic prolapsus of the diaphragm and the spasms ceased. In proof of my theory I submit the following:

1. The first attack this boy had of epilepsy was undoubtedly caused by a fall. Another fall caused the fits to cease. When I examined him I found a maladjusted spine and ribs, and when I readjusted these parts he was well again. The spasms in the second instance were exactly like the first, except that they were more numerous the second time and more severe. The evidence here would point to the same cause. The cause in the scond instance proved to be one of maladjustment, which when removed the spasms ceased. In the first instance there could have been some maladjustment of the anatomy from the fall and a readjustment in the second fall, which removed the cause; however, such conditions have come about from simply nervous shock, but in the light of all the evidence here and in what follows it is but logical to conclude that the causes were the same in both instances.

2. Dr. Raney, author of "The Anatomy of the Nervous System," gives the following description of a case of what he calls "diaphragmatic tetanus," a tonic spasm of the diaphragm: "The patient is at once markedly asphyxiated. The liver is displaced downward by the contracted diaphragm. The lower half of the thorax is enlarged and rendered immovable. Inspirations are very short; expirations noisy and prolonged. The face shows anxiety and cyanosis. The pulse is slow and diminished in volume, voice monotonous in tone and often interrupted. Acute pains invade lower regions of the thorax and short over the epigastrum." This in many respects describes the condition seen in the case before us, especially as to the prolonged inspirations in monotonous tones and often interrupted. This is a good description of the cry that continued during the spasm.

3. I find a case which lends credence to my view in this case in the writings of that great English surgeon, Sir John Erichsen. In his treatise on "Concussion of the Spine, Nervous Shock and Other Obscure Injuries of the Nervous System." (The edition quoted from was carefully revised in 1882.) A man was in a railway collision. He was shaken up a great deal, but suffered no immediate effects. He helped his fellow sufferers in extricating themselves from the wreck. The next day, however, he had symptoms come on him to some extent, and they kept manifesting themselves till in giving an account of his condition some time after the doctor says: "Three months after the accident he began to complain for the first time of contractions of the muscles of the right arm and hand. His fingers became fixed, so that force was required to straighten them. Shortly afterwards the left arm became similarly afflicted. These contractions assumed an intermittent and spasmodic character and occurred several times daily. The pain in the back, which was slightly complained of at first, now became more and more severe. It was more acute from the sixth to the tenth dorsal vertebrae. Spasms of the diaphragm now came on occasionally and distressed him greatly." The sixth to the tenth dorsal vertebrae covers the splanchnic area, which enters into the solar plexus and from this connection with the phrenic nerve it is plainly seen how the injury would cause the spasm of the diaphragm. So, too, in the case in hand.

4. Sir John Erichsen also points out in this case that it had been demonstrated by Dr. Brown-Sequard that the sympathetic nerve of the back has its roots in that part of the spinal cord which extends from the sixth cervical to the ninth or tenth dorsal vertebra. We have noted above that the phrenic nerve is connected with the middle and lower sympathetic ganglia in the neck. This sympathetic connection with the phrenic could account for the sensitive condition in the cervical region at the origin of the phrenic nerve.

5. In another case cited by Sir John Erichsen we have further proof. In this case some large pieces of timber fell upon a man, injuring his spine. He says: "On applying pressure along the line of the vertebral spines three tender spots were met with in the lower cervical (fifth and sixth) middle dorsal and lumbar regions." Later he says of this case: "He was, however, seized with 'fits,' probably epileptiform, and in one of these fell into the river and was drowned."

Notice the places of sensitiveness and injury to the spine in this case also, with a resultant epilepsy, and compare this with the case in hand.

6. The relation of the phrenic to the brachial plexus through the recurrent branch from the fifth cervical nerve would account for the drawing and flexed condition of the arms of the patient. As to this particular symptom in epilepsy I note it as one of the constant symptoms. This might be considered one link in the chain of evidence that the diaphragm is involved in epilepsy.

7. The question naturally arises in this case as to why we were able to relieve the case so promptly the first time and not so promptly the second time. My answer to this would be as follows: In the first instance there was a very marked anatomical lesion, which, being reduced, the spasm ceased. But this was his second attack of epilepsy, and now the nerve tissue itself had, from these recurring and continued attacks, acquired a kind of bias, or habitus, technically a diathesis, toward a recurrence of the same condition. Thus other causes than anatomical disturbance might induce an attack. In order to reach such a case it would be necessary to overcome this diathesis of the nerve tissue itself. This cannot possibly be done as a rule in so short a time as one can adjust an anatomical lesion. But in this instance the cigarettes were also having a disturbing influence, which, when omitted, sufficed.

THE SIGNIFICANCE OF ALBUMINOIDS IN THE URINE.

By Guy E. Loudon, D. O., Burlington, Vermont.

The kidneys are compound tubular glands, two in number one on each side of the lumbar spine. They lie opposite the bodies of the upper three lumbar vertebrae, back of the peritoneum, the back surface of each being in relation with the twelve ribs. They are chiefly excretory organs, entirely so, unless, as Kirk suggests, they may form an internal secretion which regulates largely nitrogenous metabolism; rapid wasting and increased elimination of urea following the removal of the greater part of them. They are made up of four 8-18 lobes, each being pear shaped, the large base extending outward to the surface; the small apex projecting into the pelvic cavity of the kidney. These lobes correspond with the original segments of foetal life, out of the coalescence of which the kidneys were formed. The lobe may be divided into the medulla and cortex, the latter into the medullary rays and labyrinth. Bearing these subivisions in mind, we are now able to consider the various parts of the uriniferous tubules, or the parenchyma of the kidneys. The typical tubule commences in the labyrinth, is a malpighian tuft of capillaries, enclosed by Bowman's capsule, which is formed by a single layer of epithelial cells. The capsule becomes constricted into a narrow neck, which leads into the tubule proper, beginning at the proximal convoluted and then the spiral sections, which are lined by low columnar or cuboidal epithelium having vertical striations at the base and which vary in granularity, transparency and size with the several stages of secretion.

The descending limb, the loop and the ascending limb of Henle follow, and are found mainly in the medulla: their epithelium varying from flat, transparent cells in the former to the polyhedral striated type in the latter. The irregular and distal convoluted divisions possessing the striated epithelium, above described, and the arched and straight collecting sections, the

latter forming the medullary rays, lined by columnar epithelium, bring us to the end of the uriniferous tubule at its opening on the papule of the lobe into the pelvis of the kidney. These several parts comprise the uriniferous tubule, quite insignificant in itself, but when the aggregate number in both kidneys is considered, we have approximately one million glomeruli and thirty miles of uriniferous tubules, with their single layerof epithelium supported by a thin sheeting of a basement membrane. This, then, is the parenchyma, the "business section" of the kidneys. Is it not truly marvellous that so much can be contained in so small a space?

THE RENAL NERVE SUPPLY.

Gray says there are about fifteen nerves to the kidney, derived from the renal plexus, which is made up of branches from the solar and aortic plexuses; the semilunar ganglion and the small and renal splanchnics. Also that the renal nerves communicate with the spermatic plexus, hence the explanation of testicular pain in renal colic. Kirk remarks "that the renal plexus is connected with the vagi and the splanchnics, both by direct fibres, and fibres which pass through the solar plexus."

Gerrish, "that the nerves follow the blood vessels and form networks of non-medullated fibres which have been traced between the tubules to meshes immediately surrounding the membrana propria and having endings unknown as yet." He says, "the vagi send some fibres."

Byron Robinson, "that the kidneys in proportion to their size have the highest nerve and blood supply of any viscus except the uterus, and that investigations at Johns Hopkins University seem to prove that the renal nerves are sympathetic only."

In his discussion of the renal nerves, Stewart says, "the vaso-constrictor and vaso-dilator fibres to the kidneys leave the cord from the sixth dorsal to the second lumbar, especially from the tenth, eleventh and twelfth dorsal." The vaso-constrictors are the more numerous and are constantly in action. They run via the splachnics, and upon the renal arteries, and send fine nerve fibres to the convoluted tubules, some of which pass through the membrana propria to the epithelial cells, while others end in small globular masses after ramifying on the walls of the tubules. These may be secretory in function, although Stewart says there is no proof yet that this is so; the increase or decrease in urinary secretion, when the nerves are stimulated or cut, being readily explained by the local or general rise or fall of blood pressure and resultant variation in the velocity of the blood current through the kidneys; the general effect of stimulation being a shrinking of the kidneys, lessening secretion, while a slow rhythmical stimulation affects the vaso-dilator fibres cause increase in size and the flow of urine, and sometimes resulting in the quantity of urine secreted. The opposite effect is obtained when the renal or splanchnic nerves are cut. The small arterioles of the kidneys are relaxed, causing increase in size and the flow of urine, and sometimes resulting in the escape of albumin, probably the result of excessive blood pressure. When the general vaso-motor center in the medulla is destroyed, or the spinal cord is cut below it, the quantity of urine is diminished owing to the great fall in general blood pressure, it being well known that blood pressure either above 60 M. M. or below 40 M. M. totally abolishes renal secretion. If the destruction of the medulla is not so great, being, instead, only a puncture of a certain spot in the floor of the fourth ventricle, the secretion is increased, owing

doubtless to the destruction of the vaso-constrictor center only, or else to the removal of the inhibitory restraint of the cerebrum from the secretory center to the kidneys, assuming that such a center does really exist, or another way of getting an increased secretion would be by keeping the medulla intact, cutting the renal nerves, and then stimulating the medulla to increase general blood pressure.

THE RENAL BLOOD SUPPLY.

The renal artery is a branch of the aorta, and for the size of the organ to be supplied, is unusually large. Before entering the kidney it divides into several branches, which having passed the hilum, give off a number of small arteries, two for each primary lobe, known as the arteria renales propriae. These pass outward in the tissues formed by the coalescence of the original lobes, and then arch over the medulla, forming an inosculation. From these arches, small arteries pass outward to each of the lobules, making up a lobe, while others pass inward to supply the medulla. They receive the names interlobular and arteria rectae respectively. The former give off the small afferent arterioles, which end in the tufts of capillaries to the individual glomeruli, whence they emerge at their points of entrance as the efferent venous radicals, again to break up into capillary meshworks about the uriniferous tubules of the labyrinth and medullary rays; the tubules of the former, especially the convoluted sections, having an exceeding rich blood supply, being next to the glomeruli, which are best supplied with arterial blood.

The straight tubules of the medulla are well supplied by arterioles from the arteria rectae, and the efferents from the most internal glomeruli.

The greater part of the blood passing through the kidneys has two sets of capillaries to pass through, viz.: the glomerular and the tubular capillaries. The results of this are an increase in the average circulation time through the kidneys, which is longer than that of most other organs, and relatively high blood pressure.

While the vital theory (Bowman's) of renal secretion, the one most popularly believed by physiologists, supposes the solids to be secreted from the blood by the striated epithelium of the tubules, and the water and salts to be secreted from the blood through the epithelium of the malpighian bodies or glomeruli, and not to be the result of a mere filtration process, yet it is known that a relatively high blood pressure is necessary to glomerular activity, and that they cease functioning when the blood pressure gets below that which is still strong enough to cause excessive activity of the liver.

The blood pressure is high throughout the entire parenchyma of the kidneys, it being greatest in the glomeruli owing to the double resistance of their own and the tubular capillaries and less in the tubules owing to the blood having already passed through the glomeruli, and there remaining only one set of capillaries to traverse.

This arrangement permits the highly organized epithelium time for the selective powers of the cells to extract the proper excreta, and less chance is given for the nutritive elements to be forced or filtered through the epithelium, while another advantage is found in the lessened shock to the cells from the decreased pressure. Stewart says such a conclusion seems well founded when we recall the fact that the liver and sweat glands which excrete waste products, have also a second capillary circulation, while all other glands, not excretory, have but one set.

Heidenhain believes "the velocity of the blood flow doubtless has greater influence on the quantity of urine secreted than the blood pressure." This view is now quite generally accepted and theoretically it seems sound, for the effete substances in the blood remaining the same in proportion, the swifter the blood moves through the kidneys, the larger the amount of waste presented to the kidneys for elimination in a given time, hence the greater the stimulus to them to functionate, on the principle that the functioning of a normal gland or organ is increased when presented with matter, the disposition of which normally depends upon that organ's activity.

The veins are formed from radicals corresponding to the branches of the several arteries, and upon emerging from the kidneys pass into the inferior vena cava.

The renal lymphatics are numerous, especially in the labyrinth. Several nodes are found in the synus, which finally drain into the lumbar nodes, to pass eventually into the receptaculum chyli.

Having briefly reviewed the anatomy and physiology of the kidneys, we are now in a position to consider those conditions, pathological and otherwise, in which albuminous matter appears in the urine; conditions which are incorrectly grouped under the heading of Bright's disease by the average physician, but which, as we shall see, are no longer regarded per se as an evidence of nephritis.

Though not a normal constituent of the urine, Musser says it is not indicative of disease of any one organ, nor does it point to any general pathological condition.

It occurs as follows (Musser):

1. In diseases of the kidney.
2. In disturbance of the circulation.
3. In blood diseases.
4. In febrile and inflammatory conditions.
5. From the poisonous action of drugs.
6. In nervous disorders.
7. In local renal affections, and
8. Functional disorders.

He then names specifically over forty diseases and conditions under the above classification in which albuminuria may be present.

ALBUMOSURIA.

This is a condition in which a leakage of albuminous matter is found in the urine. The wasted proteid has not reached the serum-albumin and serum-globulin stages, but is eliminated as an albumose.

Albumoses are normal products formed during the digestion of proteid substances in the stomach and intestines, e. g.

Albumen + pepsin acid + H_2O = acid albumen + pepsin acid + H_2O = proto-albumose + pepsin + H_2O = hertero-albumose + pepsin + H_2O = dys-albumose + pepsin + H_2O = deuter-albumose + pepsin + H_2O = peptone.

Albumem + trypsin + H_2O = alkli-albumen + trypsin + H_2O = proto-albumose, etc., etc., to peptone.

The other proteids, casein, glutin, globulin, etc., undergo the same steps in the process of digestion and ultimately arrive at the peptone stage. Under

normal conditions peptone is the only form which will be absorbed by the epithelium of the intestinal villi, probably aided by the leucocytes, which crowd the lacteals during digestion, into the circulation, and even during this absorption, while within these cells, a reversible dehydration takes place, whereby the peptone is converted into serum-albumin and serum-globulin, which are the blood proteids. The albumoses above referred to, being lower products of proteid digestion, are not diffusible, and are never absorbed into the blood under normal conditions, but if there is a break in the continuity of the intestinal mucosa, they are then absorbed and reappear in the urine, but owing to further digestion while in the blood, they are eliminated nearer the stage of peptone, or the blood equivalent serum-albumin.

According to Gillespie in the *Lancet*, July, 1897, albumosuria may be due to excessive production and destruction of leucocytes, as evidenced by albumosuria when leucocytosis exists, and peptonuria when pus is present. "It is probable, therefore, that a large part of the albumoses present in the blood of febrile cases is derived in this manner from the leucocytes, which have a digestive ferment of their own, capable of producing albumoses."

This is supported by Aldors' observation that albumosuria was present in 90 per cent. of febrile diseases, while other observers have found it in wasting diseases, e. g., syphilis, cancer, osteomalacia, etc., in nearly all of which leucocytosis exists and albumosuria is present in degrees corresponding to this.

Since albumoses are known to be toxic, many clinicians attribute fever to albumose poisoning. The venom of the cobra is said to contain 98 per cent. of albumose, and it has been proven experimentally that .07 gram of deutero-albumose injected into a healthy man was followed by marked fever. The reason for this is that the albumoses unite with the neurons and blood cells, affect the brain and cord centers, and lead to altered functioning so common in febrile conditions. The haemoglobin of the red cells is released, the albumin, phosphates and sulphates pass from the cells to the blood serum, while the chlorides pass from the blood serum to the cells, hence the explanation of the absence of the latter and the presence of the former in febrile urine, and the anemia accounted for. Since albumoses unite with the neurons, some antitoxin is necessary to release them. Antitoxins are cellular secretions, and anything which stimulates cellular activity will therefore increase cellular secretions. Oxygen is one of these things. The living cell is aerobic and must be continually supplied with oxygen in order to be active. Oxygen aids in the digestion of proteids, the disintegration of peptones, and in the excretion of urea, resulting in increased diuresis."

Stengel says albumoses appear in the urine in gastro-intestinal ulcers, burns and other forms of tissue destruction, and remarks that the former term peptonuria should be given ever to the term albumosuria.

He says, "the presence of albumoses retard the coagulability of the blood and often cause leucocytosis." He refers to "hematogenic albumosuria as being due to leukemias, and various intoxications, while the enterogenic albumosuria is due to intestinal mal-assimilation or decomposition."

Since it seems well established that albumosuria may be the result of intestinal lesions, and that these albumoses are toxic substances, it has been suggested that the nerve filaments to the renal epithelial cells command the cells to select and excrete the albumoss present in the blood which are really

foreign substances so far as the normal ingredients of the blood plasma is concerned. "Albumosuria also occurs in the normal puerperium."—Hare.

FUNCTIONAL ALBUMINURIA.

Tyson says, "Physiological or functional albuminuria is now generally conceded to be present in certain instances.

In such cases albumin should not exceed one-tenth the bulk of the urine tested, the urea should be in sufficient quantity, there should be no retinal change, cardiac hypertrophy or high tension pulse; no casts of the uriniferous tubules, no feelings of ill health, nor even the suggestion of dropsy, and the condition should be maintained over a considerable time before a conclusion of a harmless functional albuminuria can be made."

Thompson says, "Physiological or functional albuminuria is not uncommon among young adults, and is often called "albuminuria of adolescence." He remarks that it is probable that some temporary nerve impulse or some substance acting as a peculiar stimulant through the renal blood is the cause and that the glomerular epithelium is no more destroyed nor permanently injured than is the case in the transudation of serum in serous cavities or in simple oedema.

"The urine is usually normal in other respects in functional albuminuria."

Continuing, he says: "Not many years ago the presence of albumin in the urine was regarded as an infallible sign of kidney disease, but it is now well known that errors in diet and faulty assimilation produced by mental or nervous strain, overwork and worry, and the exhaustion of very rapid growth in the later years of childhood and early youth may occasion functional albuminuria."

It is an interesting fact that meat juices and albumoses injected into the blood are eliminated unchanged by the kidneys, whereas if serum-albumin is injected it is retained. Hence, a diet very rich in proteid, especially if the digestion is not very strong, may allow some of the albumoses to pass through the villi into the blood, from which they are eliminated as cited above.

Leo argues, may not the true explanation of functional albuminuria be that the ingestion of so large an excess of albuminous material throws upon the kidneys such an excess of nitrogenous waste to be secreted that a temporary hydremia of the kidneys is excited, resulting in a slight escape of albumin from the blood?

Thompson concurs in this view, it being well supported by the fact that passive hyperaemia of the vessels of the kidney allows albumin to escape into the urine.

Hare makes the very emphatic and important remark that up to date osteopaths as well as medical doctors must bear in mind, "In the presence of albuminaria the real test to determine the presence of actual kidney disease rests upon the discovery of casts with the microscope, although even the absence of casts does not negative the possibility of nephritis, for they may be absent, yet renal disease be present."

CYCLIC OR INTERMITTENT ALBUMINARIA.

"Cyclic or intermittent albuminuria supports the theory of functional albuminuria. In this affection the albumin is small in quantity, but may be markedly increased at times. Care should be exercised not to mistake for

this albumin the presence of mucous, or the proteids of spermatorrhea, prostatorrhea or leucorrheal discharges. The urine is usually normal in other respects."—Thompson.

FEBRILE ALBUMINURIA.

"Febrile albuminuria may be due to toxins, e. g., albumoses, etc., in the blood; to renal congestion, or to the increased effort at elimination of waste products. There are no blood or epithelial elements as in acute nephritis, and dropsy and uremic symptoms are absent."—Thompson.

"It is quite often mistaken for acute nephritis. In the former the quantity of albumin is very small, and there are no blood discs, nor epithelial casts. It is the result of irritation of the kidneys by the infectious agents; also possibly in part of the diminished cardiac force with which the blood is driven through the kidneys, resulting in swelling and partial stasis."—Tyson.

EXTRA RENAL ALBUMINURIA.

"Extra renal albuminuria, or that coming from other sources than the parenchyma of the kidneys, may be due to affections of the pelvis of the kidney, ureters, bladder, prostate or urethra, and the vagina and uterus in the female, traceable to the serum of pus formed during inflammations of their mucous surfaces which furnish the albumin, also to hemorrhages from any of the above surfaces, e. g., menstrual discharges.

"The quantity of albumin would necessarily not be great, e. g., never more than one-tenth of the bulk of urine tested even from copious sediment of pus. When the renal secretory surfaces are involved also, you will sooner or later find tube casts and also a higher percentage of albumin."—Tyson.

GENERAL CONSIDERATIONS.

Enough has been said to show the fallacy of diagnosing all conditions in which albuminous products are found in the urine to be Bright's disease; however, to emphasize still further, note what Thompson says: "Not all cases of renal albuminuria, even with casts, are due to penhritis, and that eleven per cent. of persons examined for life insurance show slight albuminuria without any other symptoms."

Loomis states that as a result of microscopical examination of the kidneys in over 2,000 autopsies, it is rare to find absolutely normal kidneys in any one over forty years of age. He found only ten cases with normal kidneys in 250 autopsies."

Tyson says: "Retarded circulation through the glomeruli is doubtless sufficient to cause renal albuminuria, though it is probable that the altered state of the epithelium increases the elimination.

"The small quantity of albumin which escapes in passive congestions as contrasted with the amount eliminated in parenchymatous nephritis, when the cells are an early seat of change, is strong evidence in favor of some active participation of epithelial change in causing albuminuria."

Hare says: "The quantity of albumin is not necessarily of grave import, for in some of the gravest cases of renal disease, as in chronic interstitial nephritis, or contracted kidney, it is excreted in very small amounts, while it occurs in urine sometimes in very large quantities without any kidney lesion being present. As a rule, however, it indicates renal disease in some inflammatory form provided it is associated with other renal symptoms.

"It may be due to a failing heart, or where the normal fluid ingredients

and saline properties are disturbed between the blood serum within the capillaries and the fluid media without favoring pathological osmosis, and to an excessive albuminous diet, which are not necessarily indicative of renal disease."

Stengel says: "Albuminuria is more frequently of renal origin, but it may be present in certain amounts in congestions of the kidneys, in anemias, in certain nervous disturbances of the circulation, and in disorders of the digestive tract, and that it may be cyclic, the result of errors in diet, exposure, exercise, etc."

The following remark of Thompson is well worth remembering when we are treating various albuminurias, to-wit:

"Fluctuations occur in the amount of albumin in the urine, and albumin may be absent temporarily while the disease may even be making uninterrupted progress."

THE OSTEOPATH'S VIEW.

As osteopaths, we have constantly in mind the causative factors which are responsible for these unnatural phenomena as revealed by our chemical and microscopical examinations of the urine. We accept with thanks the most excellent contributions to science made by our medical brethren of other schools, and note with pleasure that as their investigations are broadening their views of the etiology and pathology of diseased conditions, this new knowledge has constantly tended to bring their clinicians to discard time-honored, though mistaken, practices, and look more respectfully upon anti-drug methods, and rely more confidently upon the healing power of nature, the force long recognized by the osteopaths, who, while finding much that is good from the pens of other writers, believe that many times the real causes of disease are revealed only by the osteopathic examination, based upon the indubitable fact that osseous, ligamentous and muscular lesions recognizable only by osteopathic principles, are the primary causes back of the causes of disease usually cited by medical doctors.

For example, I am thoroughly in accord with their discovery that albumoses appear in the urine owing to faulty assimilation decomposition of intestinal contents, etc., but why the digestive disorder? The osteopath almost invariably discovers a lesion to the nerves to the intestines, which not only weakens the cell nutrition to the intestinal villi, causing the break in the continuity of the intestinal mucosa above referred to, but it likewise causes a disproportionate secretion of digestive juices which results in the retarded digestion and decompositions. This cause of causes is overlooked by the M. D.

I do not doubt that functional albuminuria often appears in the adolescent, especially if overwork, worry and mental strain accompany adolescence, but the osteopath is reasonably certain that many of these cases would never have been attacked had there not been some osteopathic lesion to the nerves, and via the nerves, to the blood supply to the kidneys and digestive tract. I have had recently a typical case presenting a lateral twelfth dorsal and anterior fifth lumbar, correction of which cured the case. Unquestionably many get well who never receive osteopathic treatment, owing in some instance, no doubt, to a correction of dietetic errors and the adoption of more outdoor living, but many linger on and finally degenerate into chronic nephritic patients who could have been saved had the causa causans been removed. There would be

fewer cyclic and extra renal albuminurias were the nerve and blood supply to the various surfaces kept more active and inflammations and catarrhs prevented by osteopathic prophylaxis, and the same might be said of febrile albuminuria, for it is irrefutable that there would be fewer fevers if osteopathic principles were in general use.

But some one asks, can you prove that your osteopathic idea of spinal and rib lesions are founded on fact? Yes, any modern surgery will state that ribs and vertebrae may be displaced, the only bone of contention now being the frequency of such conditions as claimed by the osteopath. However, the surgeons are rapidly recognizing the fact that if the tissues are taken off guard, a comparatively slight force may do much injury; besides the osteopath refers only to a slight misalignment of structures, rather than a complete separation of articular surfaces, as usually understood in surgical language.

Stimson says, vertebral displacements occur in the cervical, then dorsal and lastly lumbar regions, and cites what he considers a "remarkable case." A boy came for treatment complaining of pain in the head, radiating into the side of the head and down the arm. Stimson examined the boy, being assisted by another physician, and found the third cervical vertebra misplaced. They endeavored to correct it, but failed. The boy was sent home, having been told to return again in a day or so for another treatment. On the way home, having gotten an idea of the way to correct the displacement from the doctors' treatment, he rested his head against a post, put his thumb upon the transverse process of the vertebra, gave his head a twist and pushed the vertebra, which snapped back into place, all pain disappearing immediately.

Now, such reports as that coming from an M. D. of world renown fame, come so near proving the contentions of the osteopath, that vertebrae can be partially displaced, that I shall waste no more time on that subject. We osteopaths do "remarkable" things daily. Vertebrae and ribs do become partially displaced, and that frequently. When misaligned, they bring tension on muscular and ligamentous attachments and impinge upon nerve and vascular structures contiguous to them, as in Stimson's case above. This pressure on the nerves leads to altered functioning, simulating the results obtained by section of the nerve.

We saw above that cutting the renal nerve caused swelling of the kidneys, which would occur in lesions of the irritative type, and which would cause atrophy and degeneration, with escape of abnormal elements in the urine if the lesion remained operative. The nerve supply to the kidneys and intestines more or less overlap, hence a lesion in the lower splanchnic might cause intestinal indigestion and faulty absorption, as well as disturb the normal renal activity. I believe this condition is responsible for a large percentage of those cases in which albuminous material is excreted in the urine, and which has been and is now incorrectly called Bright's disease.

Cervical lesions could have a direct bearing on these disturbances by way of pressure on the vagi nerves which send fibres to the stomach, intestines and kidneys. It has been pointed out that renal vaso-motor centers exist in the medulla. Lesions obstructing the verterbral arteries, or impinging on the cervical or sympathetic ganglia or chain, may directly or reflexly affect these centers and lead to altered circulation to the kidney, resulting in imperfect functioning.

Other lesions might be mentioned, but enough has been said to illustrate the superiority of osteopathic diagnosis over all comers if the osteopath but make use of the good of other schools in addition to his own system while discarding that which is harmful in therapeutics.

PROGNOSIS.

In my judgment the prognosis is very favorable as a rule in the affections above described. Of course, much latitude has to be allowed for various cases, the febrile albuminaria usually disappearing with the subsidence of the fevers, etc.

As a rule, except in febrile cases, treatment should be given from two to three times per week, and particular attention should be paid to osseous and ligamentous lesions.

TREATMENT.

In addition to what has been said above, strict hygienic living should be encouraged; out-of-door life, with reasonable exercise and bathing, are ideal. The bathing should be in tepid or warm water. Albuminous foods should be indulged only moderately. Total abstinence in these cases is usually best. Inhaling while smoking should be prohibited; better still, prohibit smoking if possible. Of course, febrile cases require treatment varying with the individual case. Particular attention should be paid to the cardiac and renal nerves, and the diet should be liquid and moderate in quantity.

If the reader has profited by a stuy of this article, I shall be satisfied. Much herein has been copied verbatim from the various authors. Their words were thoughtfully chosen, and carry more weight to you than would have been the case had I given the same facts in my own phraseology. A discussion of Bright's disease proper will be deferred until a later article.

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MECHANISM OF RECOVERY IN THE INFECTIONS.

Paper read before the A. O. A. at Cleveland, O.

By HARRY W. FORBES, D. O.

Micro-organisms are introduced into a host, multiply there and evolve substances, toxins, which are distributed throughout the body of the host. This is termed infection. Some definitions limit the term infection to those instances in which there are manifestations of disease in the host. In numbers of instances, however, there are no manifestations of illness on the part

of the host (not so much can be said of the bacteria), although a remarkable set of phenomena occur.

If our arbitrary divisions of science are faithfully respected those infections in which a deviation from the usual manifestations of life occur belong to the province of the pathologist, those in which such deviation is absent to that of the physiologist. Perhaps I could point to no better example than the phenomena of infection to show that there are no divisions in the subject matter of natural science, save those allowed by convention.

During an infection the invaded organism may be uninjured, injured or killed; likewise the invader may be uninjured, injured or killed.

In the acute infections—typhoid fever, diphtheria, lobar pneumonia, influenze, measles, scarlet fever, smallpox, etc., there is, after the introduction of the exciting cause, a characteristic stage of incubation, followed by manifestations of disease. After these have persisted a certain length of time they are in the large number of cases succeeded by the manifestations of health. The death rate varies in different infections and in different epidemics of the same infection.

Abortive cases, i.e., those which terminate much sooner than the average, of treatment.
occur in all infections. This is observed in cases untreated and under all kinds

Cases which last much longer than the average occur under like conditions. Sometimes, after the disappearance of the disease symptoms, they reappear—relapse or reinfection.

That the death rate varies with the kind of interference and recovery is more complete under some forms of treatment than others is not to be doubted, and had the subject of my paper been "The Therapeutics of Infections" I feel that in a large majority of the infections I could have supported osteopathic methods by sufficient evidence to place them in the lead, not only as productive of a lower death rate, but what is better yet, a more complete recovery.

After recovery from an infection the reintroduction into the organism of the exciting cause, or its toxins, is not followed by the manifestations of disease. The organism is said to be immune. Immunity may be temporary or lasting. When much more than the usual disease producing quantity of toxin is introduced, immunity is usually overcome.

The mechanism of recovery in these diseases is the subject of my paper. I regret that it has not been my privilege to make some contribution to the knowledge of the subject before undertaking to present it. I feel, however, that if I faithfully represent those who are devoting their lives to the development of natural knowledge in this field, the effort will not be wholly unprofitable.

A great amount of work has been done in this direction in the last few years, and the uniformity of results is remarkable. The question is not yet solved completely, but the direction in which the answer is to be found seems clearly indicated.

The physiological and pathological laboratory workers have revealed a set of phenomena quite as fascinating, when contemplated as natural events, as they are fruitful for therapeutic speculation.

Let it be observed that in the following I am speaking for the physiologist

and pathologist and not as a therapeutist. Whether the practice of any system receives support or condemnation from these matters of fact would be an interesting question for discussion. I leave you to decide it for yourself, with only this comment, that in my opinion these advances in physiology and pathology all support our contention that the laboratories of the invaded organism are capable, under physiological conditions, of elaborating all specific remedies. Surely we who plead for the efficiency of natural recovery and for such interference only in disease as is calculated to promote and assist natural mechanisms should do all we can to hasten the day when these mechanisms are carefully investigated by osteopathic physicians. I do not question the honesty and am not competent to question the ability of the world's laboratory workers, and I do not believe that a therapeutic hypothesis is dearer to them than truth. I am, however, anxious that no reproach may fall on our profession for a failure to manifest activity and competency as developers of physiological and pathological knowledge.

Now to my subject proper. So complete is the analogy between the set of phenomena occurring in an organism following the injection into it of blood from animals of a different species and those following bacterial invasion that it seems justifiable to conclude that whatever explains one will explain the other. Indeed it is highly probable that when the rule of order or law of natural recovery and immunity from infections can be wholly stated that the facts of tolerance, which may be established for the alkaloids, snake venum, blood transfusions, in fact for the poisonous products of all animal and vegetable cells, will have received their explanation.

Many years ago it was noted that blood transfusions from an animal of a different species was sometimes hurtful. In 1898 Belfante and Carbone demonstrated that when an animal is treated with blood taken from one of another species the blood of the first becomes toxic for the second. If the blood of a rabbit be repeatedly injected into a horse and the serum of the horse thus treated is injected into the rabbit it will be killed, the red corpucles being dissolved.

Bourdet found that the serum of rabbits treated with the blood of guinea pigs dissolved the corpuscles of guinea pigs when the two are mixed outside the body.

Von Dungeon found that the corpuscles of chickens or pigeons' blood, when injected into the peritoneal cavity of guinea pigs were slowly dissolved. He repeated the injection two weeks later. The corpuscles were quickly dissolved and the serum of guinea pigs now agglutinated and dissolved the blood of the chicken or pigeon outside the body as well as in it.

When defibrinated human blood is injected into animals, i.e., rabbit, in small quantities and repeated a few times, the rabbit's serum acquires the property of agglutinating dissolving and producing a characteristic precipitate in human blood to which it is added. The characteristic precipitate occurs in dried or otherwise altered blood. So far as experience yet shows it will not occur when the rabbit's serum thus treated is mixed with blood from any other animal besides men and monkeys.

Normal human serum will dissolve the red blood cells of some alien species, i.e., rabbit. Normal eel's serum is toxic for rabbits. If injected into them in large quantities will dissolve therein red blood corpuscles. If in-

jected in repeated small quantities into rabbits the red corpuscles are no longer injured and the rabbit is then immune to large amounts of eel's serum.

The poisonous products of certain bacteria will dissolve the red blood cells of animals either in the test tube or in the body. One of the toxins produced by the tetanus bacillus possesses this property and was hence named tetanolysin-Ehrlich. After repeated small injections of tetanolysin, however, the serum of the animal into which the injections are made is found to contain substances which prevents the dissolving of the red blood corpuscles, both in the body and in the test tube. If the immune serum is added to a mixture of the tetanolysin and blood, no hemolysis occurs. If, after the mixing of the tetanolysin and the blood, the immune serum be withheld until hemolysis begins, it is promptly arrested by the addition of the immune serum.

Bourdet has shown that the serum from animals made immune to cholera possesses the property of agglutinating and dissolving the living vibrios of cholera.

Agglutination, dissolution, precipitation, one or all, are observed when the serum of an animal recovering from an infection is added to a culture of the micro-organism which is the exciting cause. The phenomenon agglutination appears early in some cases. It is utilized in diagnosis, for instance, in typhoid fever.

An emulsion of dog's thyroid in salt solution was injected four times, with intervals of four weeks, into a sheep. The sheep's serum was then injected into the dog's circulation. Two injections were made, the last injection being the larger. Well marked symptoms of tetany followed each injection. The dog was killed. The thyroid showed absence of colloid in many follicles and vacuolation and chromatolysis of the cells.

Tetano-pasm (Ehrlich) is another toxin of the tetanus bacillus and the one which produces the contracture and spasm in tetanus. If it is injected in small quantities into animals they acquire an immunity to large doses and if the serum of animals thus treated is added to the tetanospasm in a test tube and the mixture injected into a susceptible animal the symptoms of tetanus do not appear. If immune, serum is injected into an animal and a fatal dose of tetanus toxin is then administered no symptoms follow. Note that in this case the toxins only are injected and antitoxins only elaborated in the organism. Antitoxin is not detrimental to the bacteria whose toxin is neutralized.

I might multiply instances, but these are probably sufficient. From these is injected repeatedly small quantities of bacteria or blood corpuscles or any other differentiated cells from an animal of another species, acquires the property of agglutinating, dissolving and precipitating (one, two or all) within and without the body, the cells injected. This is not wholly specific, i.e., limited to the peculiar cell of the certain species. The peculiar and probably closely allied cells of the certain and closely related species are likewise altered. Second, when toxins are introduced into an organism they are neutralized by the elaboration of antitoxins.

While the evidence is not sufficient to wholly establish the above generalization it is sufficient to justify or necessitate some such proposition.

Is the elaboration of these substances which neutralize the toxins—antitoxins, and kill the bacteria—bacterolysens, an affair of the cellular elements or the fluids of the body? I am requested to be as brief as possible so

will not burden you with the experiments which have been made to answer this question.

The evidence accumulated supports the view that the cells play the chief role and that antitoxin and bacteriolysin production is a stimulation phenomenon. The injurious agencies acting on the cells are neutralized or killed by the reaction products of the cells. Probably substances present in normal serum unite with such reaction products to complete the bacterolysin.

There are several hypotheses advanced to explain more in detail than the time allotted for this paper permits me to go, the foregoing facts of recovery, immunity and tolerance. In my opinion the most satisfactory is the Ehrlich lateral-chain theory. The greater number of you are probably familiar with this, and those who are not, and are interested in this line of investigation, will be repaid well for the time spent in acquiring an understanding of it.

The material for this paper was taken largely from the articles on physiology and pathology in *Progressive Medicine*, series 1898-1903.

THE CODE.

By C. M. Turner Hulett, D. O.

The three articles on the code in the last Journal represent the extreme of opposition. So impetuous is the attack that the writers are carried beyond the line of temperate discussion. Such expressions as "curtailing one's liberty," "cast-iron rules," "calls upon us to co-operate with pedantic criminals" are entirely beside the mark, uncalled for and untrue. A code is a statement of agreed methods of procedure under given conditions. The very word profession implies some general uniformity in practice.

The expressions "allopathic code," "homeopathic code," "osteopathic code" are misnomers in the sense in which they are used. The principles of ethics are the same among all men. Amity, courtesy, justice, right have nothing to do with the theories of therapeutics. Their application to the relations between one physician and another physician or his patient is the same whether the therapeutic procedure agreed upon is osteopathic manipulation or a dose of digitalis. The medical profession has not always been dominated by evil men. It has had some good men, and from their experience they have evolved some good things, and it is simply puerile for us to be so narrow and bigoted as to refuse to profit by the experience of those who have gone before.

We do too much railing at the medical profession for our own good. We can never build ourselves up by trying to tear others down. Dr. Still has set us a good example in that respect. He has always commended the members of the medical profession as men; that they would compare favorably with any other set of men, but that it was their erroneous practice he opposed. The code deals with men, not with their theories of practice. Whether Dr. Young's statement as to the animus of the old school in adopting the 1846 code is true or not, the fact remains that they have seen the error of their ways and their new code entirely eliminates that restriction, and now a "regular" may consult with a homeopath, eclectic, physio-

medical or osteopath if he chooses, and we propose to reserve to ourselves the same privilege.

A code curtails liberty in the same way as the constitution of the A. O. A. curtails liberty, and in no other sense. Dr. Young's third paragraph is simply a diatribe against all law. To paraphrase Dr. Smith, "I am too much of an American" to not make my personal conception subservient to the expressed will of the body politic.

Several criticisms of the code as a whole have been offered. Some would wish for more detail, others for more generality. We will have to compromise on that point. Reducing it to the terms of the Golden Rule would be all right if we all had the philosophy, breadth of view and ripe experience with every phase of life's relations to properly apply it. But unfortunately we are not all so endowed. In this connection three classes need to be considered: First, those who always do the right and expedient thing, and who always know what is the right and expedient thing to do. These do not need a code. Second, that large class who mean to do right, but sometimes make mistakes, who are sometimes up against conditions new to them, where they are in doubt as to what is best to do. To these a statement of the combined experience and agreed policy of the profession under a given set of conditions would be invaluable. Third, if there should ever be any who would wilfully do the wrong thing, the profession ought to have some standard of dealing with such.

Dr. Young and Dr. Burleigh still both entertain an erroneous view of the position of consultant. Dr. Young speaks of "one of the grandest persons on earth, ——, calling us in to consult ——." Just there is his error. The patient never calls a consultant. He may indicate his preference to the physician in charge, but the latter may have good reasons for not observing this preference. The patient is not a patient of the consultant in any sense. The consultant's whole duty is to advise the physician in charge, whose professional guest he is. He has nothing to do with the patient beyond such a strictly technical examination as is necessary to a correct conception of the case. The idea of the patient calling in a second physician to tell him whether the first one is giving him the proper attention is the sort of "consultation" which the code does not contemplate at all. In fact such an unprofessional mix-up is not conceivable among reputable physicians. Consultation does not relate to the patient but to the other physician. Dr. A. has a case which bothers him. He goes to Dr. Young and says: "Help me out in this case." They first talk it over. Then Dr. Young examines the patient if necessary to a full understanding of the merits of the case. The two doctors then talk it over again by themselves. Dr. Young says: "I think I see where you have made one mistake," and clearly, kindly, in a brotherly way he gives his views, and says: "Now you do so and so and let me know in a week." Dr. A. Does so and reports good results. Dr. Young says, "Now follow that up with thus and so," and so they go on carrying the case through to recovery. Dr. Young may or may not see the patient again. That is the kind of consultation meant in the code. Dr. Young would be guilty, not only of unprofessional conduct, but of the grossest discourtesy if he should proceed to berate Dr. A. to the patient.

Now for the reverse side of consultation. When the two doctors sit down to talk over the case and what shall be done for it, they find they can not

agree. They hold different theories of the case, and would follow differing lines of treatment. What is the duty and right of each? Manifestly Dr. Young's services terminate at that point. He has done what he was asked to do, given his opinion of the case. It is Dr. A's case, and he will continue to handle it until he is discharged. Dr. Burleigh to the contrary notwithstanding, it would be inexcusable egotism for Dr. Young to say: "I know I am right and Dr. A. wrong, and I am the one to treat this case." If he finds criminality, or gross incompetence, and Dr. A. will not listen to reason, then the first necessity is to terminate the consultation. Then proceedings may be had against the offender in the civil courts, before the state board for revocation of license, in the professional organization for repudiation, or in public or private denouncement. But these things are not to be confounded with the *modus operandi* of consultation.

Again, the code can not be mandatory. It can not compel consultation in any case. That family physician who refused to consult with Dr. Young, if impolite, was still within his professional rights. I should most certainly refuse to be bound to consult with any physician who asked me. And as long as I am in practice I shall reserve the right to refuse to meet any physician whom I do not want to meet.

The same general principles apply in relation to the patients of an absent physician. In Dr. Burleigh's case of "malpractice," if he is a gentleman he will treat the patient to the best of his ability, but say nothing to him in the other doctor's absence. On the latter's return he will talk the matter over, to perhaps find only a mistake, which he will help him to correct. But if he finds criminality it will then be time enough to proceed on that line, but that is a wholly different matter.

I think Dr. Burleigh will have some difficulty in convincing the osteopathic profession that it is unjust to exclude from practicing any one even if he never went to any college. If that is true, then all the efforts of all the best men of the profession, of the A. O. A., and of the colleges, for higher standards and more assured competency, all the long and hard struggles for legal recognition and regulation are not only undesirable, but are contrary to the best interests of the profession. With all respect to the doctor, the public does not distinguish the good from the bad, nor can any legislation accomplish this perfectly, but it is a good deal better than nothing. And the line between those whom we shall recognize and those whom we shall not recognize is drawn more conveniently at the line of legal recognition than elsewhere, as well as being in consonance with the general policy of the profession. The fact that incompetents are turned out by the schools does not argue for doing away with the schools, but for improving them.

Dr. Sullivan reiterates some of his former statements and then makes some rather wild claims. For instance: "It is essentially osteopathic doctrine to condemn * * * injury or death of an unborn child equally with injury or death of the parent." In this the doctor makes an unwarranted assumption for his side of the case. Whether "one life is as precious as the other" is the very point of difference. He assumes as settled, as a "cardinal osteopathic tenet," the very point under discussion, and then attacks the code from that standpoint. He would impose his views upon his professional brethren as essential osteopathic doctrine, while the code contemplates giving each side perfect liberty to hold its own views. He attempts to bolster up his position by misquoting Dr. Still. He seems to oppose all surgery and

speaks of cutting off a finger with a felon on it. What would he do with a finger on which gangrene was passing rapidly up the member? He does violence to Dr. Still's teaching by implying that it supports his position. On the contrary, Dr. Still has for several years maintained a surgical department in his infirmary work. Again, Dr. Still never taught that a rachitic or osteomalacic pelvis or a hydrocephalic foetus was the perfection of divine artisanship. He claims too much on a one-sided interpretation of Dr. Still's teaching. But without entering into these side issues let us not forget the main point. Given a case of pregnancy in which the death of both woman and foetus is certain if left to nature. Notwithstanding Dr. Sullivan says the aim of true medicine is to save all life, he says let them die. Others, including the woman's family, would say save one if you can not save both. He berates the committee for not attempting to settle this disputed question, and he has failed to convince this member of the committee that it ought to have done otherwise than as it did. I still thinks that in the code is not the place to settle this question.

Some of the criticism is directed against things that are not in the code. They set up a whole row of straw men and proceed to knock them down. One gets the impression of a captious seeking for excuse for fault-finding, as in Dr. Young's objections to "the exercise of a firm authority by the physician." Indeed, there has been very little of really valid objection to the code so far. Dr. Sullivan's point is one for legitimate discussion (and personally I do not mean to be understood as necessarily in opposition to Dr. Sullivan in the matter), but it is a question of practice rather than code.

It seems evident, then, that the principal objections urged are to matters not germane to the code, while those that do apply refer to details such as the turn of a phrase in expressing a particular meaning. That being true an agreement ought to be easily reached.

Cleveland, Ohio.

THE THREE YEAR COURSE: SOME QUESTIONS FOR THE PROFESSION TO DECIDE.

WILFRED E. HARRIS, D. O.

At the St. Louis meeting there will be various topics of interest brought up for discussion, but one is paramount in importance—that one being the educational problem and the three year course. At the Cleveland meeting last year the Committee on Education suggested that the various recognized colleges adopt a three year course of nine months each, to be given in three separate years, beginning with September, 1904; and it was also thought desirable to matriculate but one class per year. These suggestions had been made by the committee after very careful consideration of the whole matter from the standpoint of the future welfare of our science.

The association at large voted unanimously for the acceptance of these suggestions, showing by this act, very clearly the general feeling in the matter. Furthermore, the Associated Colleges, at their meeting, voted unanimously in favor of complying with the wishes of the committee and profession in this matter. It would therefore appear as if the question of the colleges adopting a three-year course had been definitely settled.

I don't want to appear premature in judging of the future, but I regret to

say several of the colleges have continued to advertise a twenty months' course, with two matriculations, as before. This would appear to clearly show the intention of said colleges is to disregard the wishes of the profession on this vital subject. It is accordingly proper for us to consider at this time what stand to take in order to bring about harmonious action and thus avert a controversy which will not be productive of any special good to our cause.

The twenty months' course is too brief. However clever the student, he cannot by any process of mental gymnastics, transplant himself with such suddenness from one field of thought and activity to another. More time must be allowed for thought along a special line. If our school is to take rank with and supersede other methods of practice we must send our graduates into the field equipped to meet all the responsibilities of the family physician. The present-day family physician cannot be trained in twenty months.

The twenty months' course has obliged many of our brightest men who are not satisfied with doing purely an office practice, confined to the treating of chronic cases, to finish their education in a medical college. This is wrong, and weakens the whole profession.

The degree D. O. does not carry as much weight and dignity in a community as the degree M. D.; let us set to work making it as highly respected. Just as soon as it is generally known that as much hard work and as long a time are required to attain the D. O. as the M. D. people will cease to make odious comparisons. Let us kill this tendency to go to the regular school for the knowledge which should be as thoroughly imparted in our schools. We don't want to practice drug medication! It is pretty hard to persuade a patient to cease taking drugs, simply because *you* disrelish the habit. Your persuasiveness becomes much more effective if you can explain just why no drug should be taken.

What we specially need is a more thorough elaboration of the various branches in our present curriculum. We need experimental work in biology and physiology and osteopathy. We need *actual* work in obstetrics, gynecology, and conservative surgery. Osteopathy is of inestimable value if administered before, during and after surgical operations. My experience in hospital work in the past year has shown me, as I was never before shown, what a great field of usefulness we have in this latter work.

Since entering practice I have taken up general work from the outset, and have put our science to the test in every kind of a case I could get in touch with. I can frankly say a two years' training has proven inadequate. Four consecutive years of additional college work, taken in our own school, have only served to show me how greatly the longer course is needed. We need to know more osteopathy; we need to know our limitations, and then to frankly acknowledge them. We are much given to making presumptuous and unwarranted statements relative to our capabilities in certain directions, and we are oft times guilty in this particular through lack of training. Sophistry is not a good substitute for practical knowledge.

If we are to permanently maintain our identity as a distinctive school we must strengthen our weak places. Every time we turn a serious or probably fatal case over to the regular M. D. for lack of experience or confidence in ourselves, we do our cause lasting injury and prove ourselves to be fair-weather physicians. There are still to be found in our ranks men who are narrow-minded and non-progressive. These will have you believe a little knowledge

is a *good* thing and more knowledge is a dangerous thing. Their statements in every single case fail to bear careful analysis.

In conclusion, let me say a word as to the colleges. Some of them say, "Don't make it too hard for us!" "Don't embarrass us!" "Don't hurry us too much!" Let me console them by saying that no desirable students will be kept away from them by a three-year course. Keeping students in college three years at $150 per annum is quite as profitable as keeping them two years at a like rate. The world is not in such sore need of more osteopaths at this time that it cannot wait till they are fully educated. The profession at large is not so anxious to have new recruits nor new competitors that it cannot afford to wait till the colleges can furnish the proper type of graduates.

If the allopath and homeopath need four years' training, and the Swedish masseur three years, we are indeed a clever lot if we hope to supersede them all on but two years' training. Let us stand shoulder to shoulder in doing our plain duty. Let us give our support to those colleges which are willing to take the advance step and withdraw our support from those which refuse to do so. The profession spoke decisively last year; let us brook no retrogression *this* year.

Boston, Mass.

CLINICS AT THE CLEVELAND MEETING.

Afternoon Session, July 17, 1903.

Dr. George M. Laughlin demonstrated a case of torticollis, probably dating from birth, in a boy of six years. The left sterno-mastoid was the muscle chiefly involved. It was much contracted, shortened and atrophied. The cervical spine, including the atlas and axis, was markedly curved to the right and a probably secondary curvature to the left existed in the upper dorsal region. Dr. Laughlin thought that a complete cure of the case was extremely improbable, but that treatment directed to the correction of the abnormal conditions would be greatly beneficial; especially if there was no central degeneration. He had seen similar cases greatly improved under a long course of treatment.

Dr. Joseph H. Sullivan presented what he considered a typical case of chronic colitis, with acute attacks simulating appendicitis. The patient, a male aged 23, had from childhood been constipated. The bowels ordinarily do not move without the aid of an enema. The lesion Dr. Sullivan pointed out was a twisted condition of the 8th and 9th dorsal vertebrae which, in the judgment of the demonstrator, so infringed upon the ganglionic centers and splanchnic branches in that region as to interfere with the vasomotor control of the ileum and colon.

Afternoon Session, July 18, 1903.

The stenographer was not present when Dr. C. W. Proctor demonstrated a case of goitre, and made only a partial report of a case of double lateral curvature demonstrated by Dr. H. W. Forbes. Much to our regret the report of these cases will have to be omitted.

Dr. Hildreth presented a case of Dr. Richardson's of synovitis affecting the knee. The man gave a history of a fall five years previously, in which the foot was caught and the knee doubled under his body. The knee had

been treated by surgeons by means of plaster of paris, metallic splints and by electricity and massage. He was on crutches for eighteen months after his six months experience with the plaster of paris cast and the metallic splints. The patient had had varicose veins of the leg for nearly forty years. These had been reduced under osteopathic treatment to less than one quarter of their former size.

Dr. Hildreth emphasized the importance of searching for a spinal lesion in all cases where disease affected a peripheral part. And even in those cases where the injury occurred at the periphery the treatment should not be confined to the periphery, but should in all cases be applied at the spinal origin of the nerve controlling the circulation and nutrition of the part affected. Our treatment is scientific, the speaker declared, only when we treat the cause, and the cause can not be treated osteopathically unless the practitioner knows definitely and certainly the nerve that controls the part involved or the function disturbed.

Dr. Richardson had treated the case several months and the synovitis had been entirely relieved, though there was still much stiffness remaining in the joint.

Dr. Chas. E. Still presented another case of Dr. Richardson's that had been diagnosed as locomotor ataxia and otherwise. She walked peculiarly, and with great difficulty over rough places and could not control her feet unless she could see them. This case was complicated by prolapsus uteri. The organ was greatly enlarged and retroflexed; and there was a ptosis of the abdominal viscera as well, but without adhesion. Examination of the spine showed a decided break at the sixth and at the eighth dorsal.

On the subject of locomotor ataxia Dr. Still said that 25 per cent. of all cases, regardless of their origin, would yield to osteopathic treatment, and that 50 per cent. of cases of traumatic origin would get well. We cannot give a confident prognosis in these cases because we do not know the recuperative power of the nerves involved.

The case under consideration was of eight years' standing. She has had a few months of osteopathic treatment, with but little benefit. A year's treatment was advised and if at the end of that time the patient began to improve treatment should be continued.

"OSTEOPATHIC DAY" MUSIC.

The Temple Quartette, composed of the following gentlemen, first tenor, Mr. Joseph Buse; second tenor, Mr. George Ravold; first bass, Mr. John Rohan; second bass, Mr. James Stanley, will render the following selections:

First Song—"On the Sea," Buck.

Second Song—(a) "Sweet and Low," Barnby; (b) "Two Flies," Parks.

Mr. Charles Galloway, the official organist of the World's Fair, will preside at the great organ, and render several selections during the evening.

Character is more than intellect. A great soul will be strong to live, as well as to think. Goodness outshines genius, as the sun makes the electric light cast a shadow.—Emerson.

Men must love the truth before they thoroughly believe it.—South.

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JULY, 1904.

FADS.

The mere statement that a therapeutic measure or system is a fad does not make it so. It has been asserted of osteopathy innumerable times that it is a "fad that will soon die." Yet it does not die. In fact, it is making a rapid and healthy growth. It has not become extinct in any community where it has been efficiently and conscientiously practiced. There is one fact about osteopathy that is true of few other systems, and which may serve to account for its being outside the realm of fadism, and that is the fact that its practitioners agree unanimously and enthusiastically upon its fundamental principles. They may disagree about methods, the use of adjuncts, etc., but they are in accord upon the basic principles of their science.

It would hardly be just to speak of the practice of medicine as a fad, yet it is well known that many measures employed by medical men have been and are such. A large section of the medical profession opposes vaccination, many of them oppose the use of anti-toxins, yet those things are now having quite a run. Ovariotomy not long since was quite a fad and has not altogether gone out yet. Just now the medical men are afflicted with the surgical fad. One member of the A. M. A. in a paper before that body recently declared that doctors now practice surgery too much and medicine too little.

This is an age of theories. Almost every day some man arises with a theory for the natural cure of humanity's ills. There are so many of these advanced by practitioners of so-called natural healing methods that are opposed to others that are advanced equally as vociferously that it is difficult to escape the conclusion that some of them are fads. Some propose to cure practically all diseases by a system of bathing. Another describes a particular kind of bath, different from others proposed, which he calls the "natural bath," and argues that it is the proper way to cure ills. Then a man arises to say that all bathing is unnatural and harmful. Others make enemata of water or colon flushing a panacea, while another naturopath declares that the rectal enema is unnatural and does positive harm. Dietetics ought to be a science and no doubt will become so, but at the present time it will hardly be denied that it is in a chaotic state and the most contradictory theories are advanced concerning it. So while it may not be becoming in osteopaths, who are sometimes accused of being faddists, to make the same charge against persons who are proclaiming the virtues of what they call "natural healing" methods, yet out of their own mouths are they condemned. Surely some of these people are faddists. All can not be right.

Our idea is that the truth is generally found between two extremes and that in giving advice along hygienic and dietetic lines we ought not blindly to advise a thing because it has appeared in print. It may be only some man's fad. We should study the patient, his needs, and give such advice as we think fits the case in hand. Wide information, a knowledge of the human body in health and disease, a special knowledge of the patient and his idiosyncrasies, and the exercise of the genius of common sense are essentials. Beware of fads.

The "ex-educator, ex-editor and present illustrious practitioner" quoted by the *Osteopathic Physician* for May presents some argument, perhaps the best that can be advanced, against the adoption of the three years' course of study. We can not agree with his conclusions. That there are good osteopathic physicians who have taken only a twenty months' course, and even much less, is undoubtedly true, but we do not believe that they would be any less competent had they taken a twenty-seven months' course.

We can not conceive of an osteopath being a better, safer, or more successful practitioner by reason of being ignorant of the pathological conditions with which he has to deal. We believe that a thorough knowledge of science would tend to confirm osteopathic theories, and not only make an osteopath stronger in the faith, but it would be a faith born of knowledge. Why not, if our contentions are true? Materia medica, as we understand it, is not a science, and hence would not be worth, to an osteopath, the time given to it in medical colleges, but we know of no osteopathic college that proposes to teach materia medica. If a twenty months' course is better than twenty-seven months, why would not ten months be better than twenty? Surely ten months would give less time to become inoculated with medical theories. But now that it has been decided that a three years' course will be given by osteopathic colleges it is a little late to be discussing this question.

The second series of case reports has been printed and sent to members with the June number of the JOURNAL. It is a very creditable publication and its editor, Dr. Ashmore, is to be congratulated upon the successful issue of her labors.

It is greatly to be desired that four of these volumes be printed next year. To do this there must be a more active co-operation on the part of the practitioners. It is a comparatively easy matter to report cases and it is believed that the reason more have not been reported is on account of the fact that so few keep records of their cases. Now is a good time to begin this important work. An evidence of the value of having cases printed in a form for ready reference is found in the fact that three of those on the program to conduct a clinic at the St. Louis meeting were obliged to appeal directly to the profession for data on subjects they are to present. This ought not to be necessary, and would not be, if the profession would do its duty in this particular.

The editor wishes to make acknowledgment of the many kind and complimentary letters he has received from members of the profession during the past year with reference to the JOURNAL. He does not appropriate all of these kind words for himself. If the JOURNAL has measurably met the expectations of its readers it has been due in great part to the excellence

of the papers presented at the Cleveland meeting and the high character of the contributions received since.

The associate editors and the Committee on Publication have rendered valuable assistance and have contributed in good measure to whatever of success the JOURNAL has achieved.

It has been said that to succeed in the law one must "live like a hermit and work like a horse." We know of no profession where work, hard work, both physical and mental, is so necessary as in osteopathy. Yet we would not advise living like a hermit. We do not believe that any one, merely because he is a lawyer, preacher or doctor, should cease to be a man; nor should he forget the duty he owes as a member of the social community and a citizen of the country.

THE YEAR BOOK.

The Year Book has been printed and distributed to the members of the A. O. A. We are glad to make this announcement, because some impatience had been manifested of late by the profession at the delay in its appearance.

Only those who have had experience in compiling and editing an osteopathic directory can appreciate the magnitude of the work accomplished and the obstacles encountered by the publishers of the Osteopathic Year Book. During the past six months there have been reported to us an average of fourteen changes of addresses per month of members of the A. O. A. Multiply this number by five and add a great number of changes that are never reported at all, consider the failure of many to reply to requests for information, and some idea can be formed of the difficulties met with in preparing an accurate general directory of the profession. When these things are taken into account members of the profession will judge more charitably if some errors appear, and of the time consumed in completing the work.

We believe the book itself will meet the expectations of the profession. The arrangement is excellent and it is well printed on good paper. Aside from the advertising it consists of 111 pages. The contents are as follows: Introduction; Roster of Officials of A. O. A.; Portrait of President Hazzard; Concise Report of Last Meeting of A. O. A. by Secretary Ellis; Brochure on Osteopathy by Dr. E. R. Booth; Roster of Officials of State Associations; List of Osteopathic Publications, Books and Authors; Osteopathic Colleges; Osteopathic Sanitarium; College Societies; Digest of State Laws Pertaining to Osteopathy; Directory of Osteopathic Physicians of the World Arranged both Alphabetically and by States and Cities. Members of the A. O. A. and State Associations are designated by suitable marks.

We hope every member of the profession will procure one of these books. We hope this because we believe the publishers are deserving of this encouragement and because the book should be in the office of every osteopath. It is well worth the price asked for it—50 cents—to members of the profession. For sale by the publishers, Wm. R. Dobbyn & Sons, Minneapolis, Minn.

No man is in free health who cannot stand in the free air of heaven, with his feet on God's free turf, and thank his Creator for the simple luxury of physical existence.—T. W. Higginson.

SAYS ANTI-TOXIN IS A FAILURE.

Dr. Elmer Lee, of No. 127 West Fifty-eighth street, condemns antitoxin treatment for diphtheria. In a letter to the Tribune he calls attention to recent utterances on the subject in *The Journal de Medecine de Paris* and compares them with opinions on this subject expressed by himself in an article read in 1896 at the annual meeting of the American Medical Association. He says in part:

"The claims that are seductively held out that cases treated early by antitoxin would recover have utterly failed. The claim subsequently that cases treated by antitoxin recover more quickly than those not so treated has utterly failed to be true. The claim that the death rate would be lessened has proved to be a disappointment. The claim that antitoxin was harmless has been proved to the contrary by many fatal terminations. It is not the purpose to impute insincerity or lack of intelligent experimenting on the part of the profession concerned in experimenting with antitoxin, but the promises of better results through its use have unfortunately failed to be substantiated. The human system, when laboring under morbid influences, needs rather those elements which can add strength and vigor to the vital resistance.

"The records of the cases treated in the Willard Parker Hospital of New York City prove that antitoxin is dangerous, and even fatal. The statistics of that hospital establish that the further use of antitoxin is unjustifiable. Dr. Joseph E. Winters, of New York, has sought diligently to establish the value of antitoxin, but the clinical experiences have forced him, unwillingly, to condemn its use. Prof. Lennox Browne, of London, patiently and earnestly sought for clinical reasons, to further the interests of antitoxin. His conclusions are emphatic and pronounced against it. Dr. Welch, of Philadelphia, also deprecates the use of antitoxin in the Municipal Hospital of that city.

The Journal de Medecine further declares that mortality from diphtheria has increased since the introduction of antitoxin treatment. It says:

"At Trieste, since 1880, the mortality due to diphtheria has undergone continued augmentation, since the figures 98 expressed the deaths that year, and have been raised progressively up to 140, representing the mortality registered during the first half of the year 1894. It reached such a point that in the last quarter of the year 1894 as many persons died from diphtheria at Trieste as had died in the entire years of 1888 to 1890. In 1895 serotherapy was applied with extreme vigor, and 271 patients died from diphtheria. Such a mortality was never experienced before the introduction of serotherapy."

This article admits that the serum causes the false membrane to decrease, but says that this is only a local symptom.—*New York Tribune.*

While the above contains nothing especially new to osteopaths we print it as an evidence of the fact that another great medical fad is passing. The following sentence indicates that some medical men are getting a correct conception of how disease is to be best combated: "The human system when laboring under morbid influences needs rather those elements which can add strength and vigor to the vital resistance."

THE SENSE AND NONSENSE ABOUT RADIUM.

April *Success* contains an article by Cleveland Moffett under the above caption that is well worth reading. The author spent a month in Paris studying radium, part of the time as a paid student, where he watched the experiments of M. Curie and his students with this strange element. With such preparation he must have gained some qualifications for writing about the subject and his conclusions ought to have some weight. What he says applies with equal force to many other much vaunted remedies. Mr. Moffett writes entertainingly of the credulity of the public when anything comes in the name of science and the American tendency "to confuse what may be with what is." He then says:

Oddly enough, these failures to "make good" seem only to stimulate our willingness to believe. We are like gamblers who reason that the red must turn up soon, and each new message from the laboratory—anybody's laboratory—finds a cohort of zealous believers, especially if it be a message of healing to the sorely afflicted. There are the sadness and the wickedness of it, for sufferers by tens of thousands put vain trust in these hasty announcements, these deceptions of half knowledge, and believe that now, at length, they are to be

rid of their ills. Think of the man whose wife is stricken with cancer, and who is assured, on the authority of distinguished names, (and this happens daily,) that radium will cure cancer, and then finds that there was some mistake; the writer misunderstood what the doctor said, or the doctor was over-sanguine, and the fact is that radium will only cure *some* cancers—*sometimes!* Think of the consumptives, millions of them, who are told (as they have been told,) that radio-active air will conquer their malady! It seems very simple; radium kills germs, hence radio-active air taken into the lungs must destroy a germ disease. But again investigation leads to disappointment; there is need of more experiments; there is lack of radium, and anyhow the thing is doubtful. Radium may cure consumption, some day, or it may not; it certainly will not now, and the man who has the disease wants to be cured now—or let alone.

So far as the treatment of consumption with radium is concerned Mr. Moffett says, "that thus far there is an entire lack of evidence from reputable physicians to show that radium has actually cured cases of consumption." He warns his readers to "Remember the Koch consumption cure, which did not cure! Remember what the X-rays were to do for consumption, but did not do!" Certainly very good advice. In the treatment of some forms of cancer there seems to be evidence that it has proved more effective.

In speaking further of the many absurd claims made for radium, the writer says:

I would not seem wanting in respect for commendable efforts and enthusiasm, but surely we may protest against this wave of radium over-statement. Here is a Russian scientist who would have us believe (so the papers say) that radium will shortly put an end to war, since it may be used to explodge battleships from the shore! What a chance was lost at Port Arthur! Here is another Russian making that old promise for radium (one frequently mentioned) that it will determinate sex! Here is a Paris doctor confident that radium will cure blindness! Here is a professor who declares that radium phenomena overthrow the atomic theory, and another who would prove by radium that the transmutation of metals is possible, and that, after all, we may change our copper kettles into gold! These things may be true, as anything may be true, but their positive announcement, as we get it almost daily, is premature, to say the least. I yield to no one in my admiration for the Curies and their great discovery, but I suppose that the world will go on very much as it has, in spite of radium. I fear people will continue to suffer and die in spite of radium, and doubt if the laws of existence or of matter will be very seriously disturbed because we have some pinches of a white powder that behaves queerly.

Mr. Moffett believes that radium may prove of value as a means of diagnosing certain cases of eye troubles, even for this purpose there are dangers that it carries in its train. He closes this branch of the subject with the conclusion that we know to be true of many other chemicals: "Even if radium should become cheap and abundant, there would remain the question whether, in its general use, it might not do us more harm than good."

WORLD'S FAIR A. O. A. MEETING.

For the benefit of the profession we wish to say once for all that all osteopaths and their friends who are planning to attend the American Osteopathic Association meeting, July 11 to 15, inclusive, need not have any fear about accommodations. Some very exaggerated reports have been spread broadcast as regards the Inside Inn and the extortionate prices charged its patrons. There has been absolutely no changes made in their prices since the opening day of the fair nor will there be until its close.

A great many have failed to secure their rooms and cannot reserve them there now for the reason that the hotel is full. All of the cheaper-priced rooms are engaged. There are a few of the higher-priced ones still open.

All osteopaths should remember that the local headquarters for the A. O. A. will be on the second floor to the right of parlor, where any and all information will be furnished and cheerfully given to our visitors.

The first day's session will be held within three blocks of the hotel in the reception hall of the Missouri State Building. The other four sessions of the regular meeting will be held in the Hall of Congresses, just back of the Administration Building.

Tuesday evening, July 12, Osteopathic Day exercises will be held in Festival hall at 8 p. m.

Bear these instructions in mind and you will have no trouble on your arrival to find the headquarters or any information you want.

We also request that all osteopaths register in the Osteopathic Register which will be found at local information bureau. We ask that all, whether stopping at the Inside Inn or elsewhere, register in this book, giving us their city address.

Any street car line going west, marked "World's Fair," will take you to some one of the entrances of the world's fair grounds and the Intramural railroad, just inside, will bring you direct to the Inside Inn. If you arrive on Sunday, July 10, take Market street car north of Union station, going west, and it will take you direct to Inside Inn.

A. G. HILDRETH, D. O.

ASSOCIATION NEWS AND NOTES.

Now for St. Louis, July 11-15.

If you do not attend the St. Louis meeting you will regret it the rest of your life.

Let every one take a few reports of cases to St. Louis and give them to Dr. Ashmore.

Read the program of the St. Louis meeting again. There have been some changes.

The secretary has sent badges to all members. Let every one wear it on the trip to St. Louis.

Before the final adjournment at St. Louis the membership should easily pass the 1,000 mark.

Let every one who attends the meeting bring the application of some osteopath who is not a member.

Fifty-seven new names have been added to the roster of the Association since the June JOURNAL was issued.

Most of the letters received at the JOURNAL office these days close with the words: "Will see you in St. Louis."

Secretary Ellis has been very busy of late sending badges to members and filling orders for invitations to "Osteopathic Day" exercises.

We hope no osteopath who attends the meeting will forget to register in the book which will be provided for the purpose by the secretary.

Those who have reserved rooms at the Inside Inn, if it has not already been done, should at once notify the Inn management when they will arrive in St. Louis.

Dr. Hildreth reports everything in excellent shape for the A. O. A. meeting. The St. Louis osteopaths have worked faithfully and harmoniously to make this meeting a success.

The very latest from St. Louis is that the information bureau and A. O. A. headquarters will be in the parlor on the first floor of the Inside Inn during the entire meeting.

Extra copies of case reports, either series I. or II., will be furnished to members at ten cents per copy. Send to the editor of the JOURNAL, enclosing cash with the order.

Out of the total membership of the Association at the close of the Cleveland meeting but twenty-one have failed to pay dues for the present year. This is too many, but the percentage is very low.

How would it do for the editors of osteopathic publications to have a meeting in St. Louis? There are many such questions as uniformity in the use of titles, etc., that might profitably be discussed by the editors.

Secretary Ellis writes under date of June 21: "I find I must wait a few days yet to submit the new applications. I have on hand now sixteen and will doubtless have more." This is in addition to the fifty-seven that were elected since the June JOURNAL was issued.

It is rather late to present any argument as to why osteopaths should attend the St. Louis meeting, but it is decidedly not too late to decide to go. Every indication now points to a record breaking meeting in point of attendance, instruction and enthusiasm.

The treasurer, Dr. M. F. Hulett, would prefer that members send their dues to him at Columbus, O., before he leaves for St. Louis and thus avoid the rush. Those who fail to do so, however, can hand him the $5.00 there; he will be prepared to take care of it.

When the JOURNAL was admitted to the mails as second class matter a little less than three years ago it had 75 subscribers, there being that many whose dues were paid for the year. There were 728 copies of this number of the JOURNAL mailed to bona fide subscribers.

To have the pleasure of meeting and hearing Dr. A. T. Still is well worth, to an osteopath who has not had that privilege, a journey across the continent. Those who know him, now that it is certain he will attend the St. Louis meeting, will make an extra effort to be present. The venerable founder of osteopathy will receive a royal greeting at St. Louis.

The following telegram, received by us on June 24, settles an important matter to the satisfaction and gratification, we are sure, of every member of the Association:

"President Francis will welcome us at "Osteopathic Day" exercises. This is official. A. G. HILDRETH."

PROGRAM EIGHTH ANNUAL MEETING A. O. A., ST. LOUIS, JULY 11, 12, 13, 14, 15.

MONDAY.

9:00 a.m.—Opening ceremonies.
9:30 a.m.—Reports of officers, etc.
11:00 a.m.—Paper, "Importance of Laboratory Diagnosis to the Physician," Clement A. Whiting.
11:30 a.m.—Paper, "Osteopathic Surgery, Including Treatment of Fractures," J. B. Littlejohn.
12:00 m.—Clinics—Diabetes Mellitus, conducted by Lucius P. Meaker, discussion led by C. W. Proctor. Asthma, conducted by George M. Laughlin, discussion led by Sandford T. Lyne.

TUESDAY.

(Osteopathic Day.)

9:15 a.m.—President's Address, "Osteopathic Manipulation of the Blood-Mass."
10:00 a.m.—Paper, "The Significance of Certain Peculiar Sounds Emanating from the Spine During Osteopathic Treatment as Related to the Theory of the Osteopathic Bony Lesion," W. J. Conner.
10:15 a.m.—Discussion led by O. J. Snyder.
11:15 a.m.—Prize Essay.
11:45 a.m.—Paper, "A Pioneer in the Philippines," Mrs. A. L. Conger.
12:00 m.—Clinics—Valvular Lesions of the Heart, conducted by Carl P. McConnell, discussion led by D. Webb Granberry. Bright's Disease, conducted by Guy E. Loudon, discussion led by C. H. Stearns.

8:00 p. m.—Festival Hall.

Pipe Organ Selection—Mr. Charles Galloway.
Invocation.
Welcome—Hon. David R. Francis.
Response—President Hazzard.
Song—Temple Quartette.
Welcome—Missouri Osteopathic Society, A. G. Hildreth.
Response—J. Foster McNary.
Music.
Short talks by prominent friends.
Song—Temple Quartette.
Informal reception.
Music.

WEDNESDAY.

9:00 a.m.—Paper, "Stimulation," Leslie E. Cherry.
9:15 a.m.—Discussion led by Geo. C. Taplin.
10:15 a.m.—Paper, "Enteroptosis and Its Effects on the Pelvic Organs," Percy H. Woodall.
10:30 a.m.—Demonstration, "The Osteopathic Examination," Guy D. Hulett.
11:00 a.m.—Action on the Code of Ethics.
12:00 m.—Clinics—Gall Stones, conducted by Asa M. Willard, discus-

sion by E. M. Downing. Diseases of the Eye, conducted by G. L. Huntington, discussion led by J. H. Hoefner.

THURSDAY.

9:00 a.m.—Demonstration, "Physical Diagnosis," F. P. Young.

9:30 a.m.—Paper, "Physiology as an Aid to Diagnosis and Treatment," C. H. Spencer.

9:45 a.m.—Election of officers. Selection of next meeting place.

11:00 a.m.—Unfinished business.

12:00 m.—Clinics—Pulmonary Tuberculosis, conducted by W. B. Meacham, discussion led by N. A. Bolles. Catarrh of the Stomach, conducted by J. R. Shackleford, discussion led by A. B. King.

8:00 p.m.—Banquet.

FRIDAY.

9:00 a.m.—Symposium, conducted by A. Still Craig, Our Failures—Their Lessons.

Paper—"Our Failures, Their Lessons," by A. Still Craig.

Paper—"The Public and Our Failures," by H. E. Hjardemaal.

Paper—"A Failure, Its Lesson," by Clara C. F. Wernicke.

Paper—"A Failure, Its Lesson," Elizabeth A. Spencer.

Paper—"A Failure, Its Lesson," U. M. Hibbetts.

Brief general discussion of papers.

The following exercise confined to thirty minutes:

Each member present is expected to be prepared to answer briefly one of the three following questions, the limit of time allowed being one-half minute. The initial letter of name determines which question each member shall answer.

A to G—With what disease or class of cases is failure most frequent?

H to N—A most important cause of failure to cure?

O to Z—A leading element making for failure in practice?

10:30 a.m.—Clinics—Gynecology, conducted by Marion E. Clark, discussion led by Minnie Schaub. Gynecology, conducted by J. W. Banning, discussion led by Joanna Barry.

12:00 m.—Final adjournment.

MAINE OSTEOPATHIC ASSOCIATION.

This Association has been requested to place osteopathy before the people very strongly and clearly, and one attempt to such an end was of the nature of an address on the "Where and Whence of Osteopathy" by Dr. Wilfred E. Harris to the M. O. A. and its friends in the Y. M. C. A. parlors of this city—Portland. A limited number of invitations were sent out and a goodly number of men and women convened to hear what proved to be for the laity a most educating address upon the fundamental principles of our science. Dr. Harris, president of the Massachusetts College of Osteopathy, is to be complimented upon the ease and clearness with which he presents osteopathy to the interested public. After the address the M. O. A. (every member was present) retired to the home of Dr. D. Wendell Coburn, at 760 Congress street, where a sumptuous banquet was spread in honor of our guest, Dr. Harris. We received much "food for thought" from short discussions upon osteopathic principles in the banquet room.

The M. O. A. has its last meeting until September on the last Saturday in June.

FLORENCE A. COVEY, Sec'y M. O. A.

We are in receipt of the interesting program for the meeting of the Iowa Osteopathic Association, held June 24, 1904, at Still College assembly room, Des Moines, Iowa.

Still College of Osteopathy will conduct a post-graduate poly-clinic summer school at Des Moines, June 20 to July 10.

PERSONAL.

Dr. E. C. Pickler, Minneapolis, Minn., delivered the address to the graduating class of the Still College of Osteopathy on the evening of June 23.

Dr. A. L. Evans attended the commencement exercises of the Southern School of Osteopathy at Franklin, Kentucky, on June 23, and delivered the address to the graduating class.

Dr. Burton J. Jones was married June 1 to Miss Myrtle May Saur at the home of the bride, at Napoleon, O. Dr. and Mrs. Jones are taking an extensive trip which will include St. Louis during A. O. A. week.

The following announcement will be of interest to Dr. Granberry's many friends in the profession:

Mr. William Morris Franklin
announces the marriage of his daughter
Katharine Borden
to
Doctor Denis Webb Granberry
on Wednesday, the first of June
One thousand nine hundred and four
at Orange, New Jersey.

REMOVAL NOTICES.

We have received notice of the following changes in the addresses of members since the June JOURNAL was issued:

Nellie M. Evans, Ravenna, to 604 Hamilton building, Akron, O.

Asa P. Bliss, South Pasadena, to 606 Chamber of Commerce building, Los Angeles, Cal.

J. S. Blair, Owosso, Mich., to Van Wert, Iowa (temporary address).

Thos. L. Ray, Board of Trade building, to 203 Fort Worth National Bank building, Fort Worth, Tex.

A. G. C. Stetson, 1535 Chestnut street, to 618-619 Perry building, Philadelphia, Pa.

E. D. Burleigh, 1537 Chestnut street, to 618-619 Perry building, Philadelphia, Pa.

L. Willard Walker, 1 Hay Hill, Berkeley square, London, England, to 148 Bath street, Glasgow, Scotland.

W. T. Thomas, Tacoma, Wash., to Muskogee, Indian Territory.

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N.—Bailey, Benj. F., 17th St., South, Minneapolis.
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Nw.—Bottenfield, Susan R., 320 N. Y. Life Bldg., Minneapolis.
N.Dailey, Lucy A., 300 Burrows Bldg., Duluth.
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N.—Moellering, Bertha W., 47 E. 6th St., St. Paul.
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A.—Pickler, E. C., 409 Dayton Bldg., Minneapolis.
N.—Stern, G. M., 307 Baltimore Block, St. Paul.
N.—Upton, Charles A., 909 New York Life Bldg., St. Paul.
N.—Willitts, A. G., 409 Dayton Bldg., Minneapolis.
SC.—Wilson, Jeanette S., Providence Bldg., Duluth.
N.—Young, C. W., 801 Ernst Bldg., St. Paul.

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A.—Bridges, James P., Charlestown.
A.—Brownell, Frank W., Wagner Bldg., Excelsior Springs.

A.—Clark, M. E., Kirksville.
A.—Conner, W. J., 204 N. Y. Life Bldg., Kansas City.
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A.—Hamilton, Warren, Kirksville.
A.—Harris, M. B., 403 Chemical Bldg., St. Louis.
A.—Harwood, Mary E., 308 N. Y. Life Bldg, Kansas City.
A.—Hatten, J. O., 402 Mermod & Jaccard Bldg., St. Louis.
A.—Hildreth, A. G., 803 N. Garrison Ave., St. Louis.
A.—Hulett, G. D., Kirksville.
A.—Ingraham, Elizabeth M., suite 303 Century Bldg., St. Louis.
S.C.—King, A. B., 309 Mermod & Jaccard Bldg., St. Louis.
A.—King, T. M., National Ex. Bank Bldg., Springfield.
S.C.—Kroh, J. S., Merchants' Bank Bldg., Jefferson City.
A.—Laughlin, Geo. M., Kirksville.
A.—Laughlin, Genevieve F., 610 Jackson St., Chillicothe.
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A.—Link, E. C., Kirksville.
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A.—McKenzie, A. L., 404 New Ridge Bldg., Kansas City.
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A.—Still, C. E., Kirksville.
A.—Traughber, Wm. F., Mexico.
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A.—Young, F. P., Kirksville.

MONTANA.

S.C.—Hogsett, K. Virginia, Pennsylvania Block, Butte.
A.—Mahaffay, Chas. W., Pittsburg Bldg., Helena.
A.—Willard, Asa M., Missoula.

NEBRASKA.

S.C.—Atzen, C. B., N. Y. Life Bldg., Omaha.
A.—Cramb, E. M., Tecumseh.
A.—Frey, Miss Julia V., Alliance.
A.—Gamble, Frank E., Bloomfield.

NEW HAMPSHIRE.

A.—Gooden, Cora L., The Whiting, Nashua.
Bn.—Gove, John McClure, 118 N. Main St., Concord.
Bn.—McPherson, Geo. W., Claremont.

NEW JERSEY.

M.—Bliss, Chas. W., 42 Hersh Bldg., Elizabeth.
At.—Boston, George R., 515 Parke Ave., Plainfield.
A.—Carlisle, Hardy W., The Romaine, Paterson.
At.—Coffer, G. T., 349 George St., New Brunswick.
At.—Colborn, R. M., 1067 S. Broad St., Newark.
N.—Davis, Mrs. Violetta S., 19 W. Park St., Newark
At.—Evers, Ernest D., Hamilton Bldg., Hackensack.
Bn.—Fleck, C. E., 462 Main St., Orange.
Bn.—Granberry, D. W., 408 Main St., Orange.
At.—Herring, Geo. DeWitt, Babcock Bldg., Plainfield.
Ph.—Howell, J. C., Sixth and Wood Sts., Vineland.
At.—Leadbetter, Laura A., Metropolitan Bldg., Orange.
A.—Matthews, S. C., 144 Carroll St., Paterson.
N.—McElhaney, S. H., 19 W. Park St., Newark
At.—Munroe, Milbourne, 530 Orange St., Newark.
A.—Murray, John H., 147 E. State St., Trenton
A.—Novinger, W. J., 147 E. State St., Trenton.
Ph.—O'Neill, A., 52 Overlook Ave., Ridgewood.
A.—Smith, Forrest Preston, 35 Park St., Montclair.
A.—Smith, Helen F., 35 Park St., Montclair.
A.—Starr, J. F., 110 Park Place, Passaic.
Ph.—Tate, E. W., 800 Broad St., Newark.
At.—Whitesell, Nettie J., Julian Place and Morris Ave., Elizabeth.
A.—Wilcox, F. F., 132 Crescent Ave., Plainfield.
A.—Wilcox, Nell S., 132 Crescent Ave., Plainfield.
At.—Worsley, A, Sweden, 223 State St., Perth Amboy.

NEW MEXICO.

A.—Haydon, Hollis, Alamagordo
A.—King, A. M., Roswell.

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A.—Beeman, E. E., 500 Fifth Ave., New York.
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At.—Bossert, Jacob H., 30-31 Gardner Bldg., Utica.
Bn.—Breitenstein, Rose E., 19 Windsor St., Rochester.
N.—Burns, Guy W., 18-20 West 34th St., New York.
At.—Buster, Will L., 110 Park Ave., Mt. Vernon.
A.—Chiles, Harry L., 118 Metcalf Bldg., Auburn.
N.—Crawford, W. A., 748-752 Ellicott Sq., Buffalo.
At.—Custer, M. D., 92 Grand St., Newburgh.
Ph.—Dailey, Lillian B., 803 Chamber of Commerce, Rochester.
At.—Davis, A. H., Room N., Arcade Bldg., Niagara Falls.
A.—Dieckmann, Louisa, 415 Vermont St., Buffalo.
A.—Drake, J. T., Oneida.
A.—Fisher, Albert, Jr., 112 E. Jefferson St., Syracuse.
A.—Fletcher, Clarke F., 143 W. 69th St., New York.
A.—Gaylord, J. S., 120 State St., Binghamton
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A.—Greene, W. E., 1930 5th Ave., Troy.
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A.—Harris, H. M., 356 Ellicott Sq., Buffalo.
A.—Hart, May V., 140 State St., Albany.
A.—Hart, Sylvester W., 140 State St., Albany.
A.—Hazzard, Chas., 19 East 38th St., New York.
At.—Heist, Edgar D., 1331 Main St., Buffalo.
A.—Helmer, Geo. J., 136 Madison Ave., New York.
A.—Helmer, John N., 128 E. 34th St., New York.
A.—Henry, Aurelia S., 209 Sanford Ave., Flushing, Long Island.
A.—Howard, Edward H. S., 509 Fifth Ave., New York.
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A.—Knapp, Lester I., 5 W. 34th St., New York.

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At.—Leffler, Josephine, New Earl Bldg., Herkimer.
At.—Leffler, Wm. H., New Earl Bldg., Herkimer.
Bn.—Lyman, Alice Parker, 159 Main St., Malone.
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S.C.—McDowell, Mary E., 102 Third St., Troy.
A.—McGuire, Frank J., 12 Jay St., Binghamton.
At.—Meaker, Lucius P., Auburn Savings Bank Bldg., Auburn.
A.—Merkeley, W. A., 480 Clinton Avenue, Brooklyn.
A.—Monroe, George T., Ellicott Sq., Buffalo.
At.—Nielsen, Hans, 7 Getty Sq., Yonkers.
N.—Patten, G. Winfield, 1 West 68th St. New York.
At.—Preston, J. Marie Fouche, 65 E. Main St., Port Jervis.
A.—Proctor, C. W., 897 Ellicott Sq., Buffalo.
A.—Rogers, Cecil R., 275 Central Park West, New York
Bn—Sands, Ord L., 24 W. 59th St., New York.
A.—Severson, Kathryne, 118 Metcalf Bldg., Auburn.
At.—Shipman, W. C., 521 State St., Schenectady.
A.—Sigler, Chas. M., 626 Washington Ave., Dunkirk.
A.—Smiley, Wm. M., 213 State St., Albany.
A.—Steele, W. W., 356 Ellicott Sq., Buffalo.
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A.—Thayer, H. A., Medina.
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Bn.—Webster, Mrs. F. A., 245 West 104th St., New York.
At.—Whittemore, Arthur C., 403 Richmond Ave., Buffalo.
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Nw.—Basye, E. E., Fargo.
Nw.—de Lendrecie, Helen, Fargo.

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S.S.—Broach, Elizabeth, Chillicothe.
A.—Bumpus, A. J., Steubenville.
A.—Bumpus, J. F., East Liverpool.
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A.—Conger, Mrs. Arthur Latham, Irving Lawn, Akron.
A.—Conner, Mary A., 303 Neave Bldg., Cincinnati.
A.—Conner, Sallie M., Chalfour Block, Bellefontaine.
A.—Corkwell, F. E., 96½ W. Main St., Newark
A.—Cosner, E. H., Upper Sandusky.
A.—Coons, Wm. N., Medina.
A.—Currence, B. C., 117½ S. Washington St., Tiffin.
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A.—Edwards, Eliza, 603 Traction Bldg., Cincinnati.
A.—Evans, Jennie L., 604 Hamilton Bldg., Akron.
A.—Evans, Nellie M., 604 Hamilton Bldg., Akron.
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A.—Gravett, W. A., Troy.
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A.—Hulett, M. F., Wheeler Bldg., Columbus.
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S.C.—Jones, B. J., Napoleon.
S.S.—Kennedy, C. S., Mercantile Library Bldg., Cincinnati.
A.—Kerr, C. V., Lennox Bldg., Cleveland.
A.—Kerr, J. A., Wooster.
A.—Koontz, Effie B., London.
N.—Liffring, L. A., The Nasby, Toledo.
N.—Liffring, W. J., National Union Bldg., Toledo.
N.—Liffring, Claire H. Gorman, National Union Bldg., Toledo.
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OKLAHOMA (Ter.).

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OREGON.

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A.—Moore, F. E., LaGrande.
A.—Penland, Hugh E., McClurg Bldg., Eugene.
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Ph.—Bentley, Lilian L., 1533 Chestnut St., Philadelphia.
Ph.—Burleigh, E. D., 618, 619 Perry Bldg., Philadelphia.
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A.—Cromie, George H., 1227 W. Alleghany St., Philadelphia.
At.—Davenport, H. Lewis, Hutchinson Bldg., Altoona.
At.—Donnelly, Emma E., York.
At.—Downing, J. T., 305 B. of T. Building, Scranton.
Ph.—Downing, Edwin M., Rupp Bldg., York.
Ph.—Drum, C. P., Weightman Bldg., Philadelphia.
A.—Dunnington, R. H., 630 Real Estate Bldg., Philadelphia.
S.C.—Earhart, Emogene M., 222 W. 8th St., Erie.
At.—Foster, Julia E., Stein Bldg., Butler.
Ph.—Frame, Elizabeth Bundy, 1525 Arch St., Philadelphia.
Ph.—Frame, Ira Spencer, 1525 Arch St., Philadelphia.
At.—Furman, Herbert I., 1530 N. Washington Ave., Scranton.
Ph.—Galbreath, J. Willis, 415 Pennsylvania Bldg., 15th and Chestnut Sts., Philadelphia.
Bn.—Gilbert, H. Armitt B., 311 Commonwealth Bldg., Allentown.
At.—Hartzler, M. Lilian, 25 East Orange St., Lancaster.
At.—Harvey, K. G., 15 Coal Exchange Bldg., Scranton.
A.—Heine, Frank R., Nixon Theater Bldg., Pittsburg.
At.—Hewish, H. I., 17 W. Ross St., Wilkesbarre.
A.—Hoefner, J. Henry, Dodd Bldg., Franklin.
A.—Hook, Virgil A. 10-11-12 Lowenstein Bldg., Wilkes-Barre.
Bn.—Hughes, Alice, 238 Pine St., Williamsport.
At.—Jones, W. Stanley, 17 South Beaver St., York.
Ph.—Kann, Frank B., 315 N. Second St, Harrisburg.
Ph.—Keene, W. B., 1524 Chestnut St., Philadelphia.
A.—Kellogg, H. R., Woolworth Bldg., Lancaster.
Ph.—Leonard, H. E., 1524 Chestnut St., Philadelphia.
A.—Love, S. R., 405 W. 9th St., Erie.
Bn.—Mack, Raesley S., 208 Broad St., Chester.
At.—Mandeville, J. E., 106 Lockhart St., Sayre.
A.—Marshall, F. J., First National Bank Bldg., Uniontown.
A.—Martin, Clara, 1028 Real Estate Trust
A.—Mawson, Gertrude, 724 Real Estate Bldg., Philadelphia.
Bldg., Philadelphia.
Ph.—McGee, J. M., 1112 Chestnut St., Philadelphia.
A.—Miller, Robert P., 43 Levine Bldg., Washington.
A.—Muttart, Chas. J., 301 Mint Arcade Bldg., Philadelphia.
Ph.—McCurdy, Charles Wm., 724 Real Estate Bldg, Philadelphia.
N.—Peck, Vernon W., Hunter Bldg., Pittsburg
A.—Pennock, D. S. Brown, 624 Land Title Bldg., Philadelphia.
A.—Pennock, Abbie Jane, 624 Land Title Bldg., Philadelphia.
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A.—Rohacek, Wm., Lomison Bldg., Greensburg.
A.—Root, J. A. Erie.
At.—Santee, I. A., Berwick.
At.—Saums, Sidney F., 210 W. Third St., Bloomsburg.
A.—Sash, Elizabeth, Flood Bldg., Meadville.
Ph.—Snyder, J. C., 414 Pennsylvania Bldg., Philadelphia.
N.—Snyder, O. J., Witherspoon Bldg., Philadelphia.
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A.—Stevenson, J. F., 719 N. 6th St., Harrisburg.
A.—Stevenson, Mrs. H. A, 719 N. 6th St., Harrisburg.
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A.—Vastine, Harry M., 109 Locust St., Harrisburg.
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Ph.—Webb, Ida DeLancy, 325 Main St., Ridgway.
At.—White, Bertha O., Clarion.
Ph.—Wolf, Henry G., 308 Real Estate Trust Bldg., Philadelphia.
S.C.—Woodhull, Frederick W., 724 Land Title Bldg., Philadelphia.
S.C.—Woodhull, Anna Bruce, 724 Land Title Bldg., Philadelphia.
S.C.—Wright, Clarence C., Charleroi.

RHODE ISLAND.

At.—Rhoads, A. W., 385 Westminster Street, Providence.
At.—Rhoads, Geo. B., 61 Pond St., Woonsocket.
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SOUTH DAKOTA.

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A.—Betts, C. Steele, Salem.
N.—Jones, G. P., Watertown.

TENNESSEE.

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A.—Bynum, H. R., Randolph Bldg., Memphis.
S.S.—Collier, J. Erle, Willcox Bldg., Nashville.
S.S.—Collier, R. S., Columbia.
A.—Downer, L. A., 301 Miller Bldg., Chattanooga.
A.—Drennan, T. L., 117 E. La Fayette St., Jackson.
A.—Duffield, Miss Bessie A., Willcox Bldg., Nashville.
A.—Evans, A. L., 301 Miller Bldg., Chattanooga.
At.—Greene, H. A., 17 Minnis Blk., Knoxville.
S.S.—Holland, W. R., Murfreesboro.
A.—Hofsess, J. W., 5 I. O. O. F. Bldg., Memphis.
A.—Link, W. F., 703 Empire Bldg., Knoxville.
A.—Morris, T. C., 110 Randolph Bldg., Memphis.
A.—Norman, P. K., 110 Randolph Bldg., Memphis.
A.—Owens, Chas., Miller Bldg., Chattanooga.
A.—Shackleford, J. R., Willcox Bldg., Nashville.

TEXAS.

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S.C.—Edmondson, E. E., 206 Levy Bldg., Galveston.
A.—Falkner, J., 4th floor Scott Bldg., Paris.
S.S.—Gooch, Lucy Owen, New Boston.
S.C.—Harris, S. D., 326 Linz Bldg., Dallas.
A.—Loving, W. B., 302 South Crockett St., Sherman.
S.S.—Norwood, Robert R., Mineral Wells.
A.—Peck, Paul M., 64 Hicks Bldg., San Antonio.
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A.—Woodruff, Homer, 208 Mese Ave., El Paso

UTAH.

A.—Goodrich, L. J., Logan.
A.—Hibbs, A. P., Deseret News Bldg., Ogden.

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At.—Cota, Rose, 10 Clark St., Burlington.
A.—Loudon, Guy E., 157 S. Union St., Burlington.
A.—Loudon, Harry, 157 South Union St., Burlington.
A.—Martin, L. D., 85 Miles Granite Bldg., Barre.
A.—Sherburne, H. K., 10-11 Quinn Bldg., Rutland.
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A.—Whitcomb, Henry Phelps, 301 College St., Burlington.

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A.—Willard, Earle S., 41 Haddington Bldg., Norfolk.
A.—Willard, W. D., 40-42 Haddington Bldg., Norfolk.

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N.—Nichols, Grace M., 301 Nichols Bldg., Spokane.
N.—Taylor, F. C., 318 Fernwell Bldg., Spokane.
A.—Thompson, H. B., Walla Walla.

WASHINGTON, D. C.

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Ph.—Hinbigler, C. F., 405 W. St.
A.—Hodges, P. L., 817 14th St., N. W.
N.—Kirkpatrick, Geo. D., Bond Building.
A.—Patterson, Mrs. Alice M., W. Loan and Trust Bldg.
A.—Smith, Orren E., Colorado Bldg.
A.—Stearns, C. H., Pope Bldg., 14th St., N.W.

WEST VIRGINIA.

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